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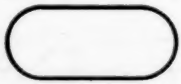
ARTICLE I.

CEREBRAL ANATOMY SIMPLIFIED. By S. V. CLEVENGER, M.D.

The human brain, like everything else in the universe, has been evolved from a simpler condition, and by a study of the forms through which the cerebrum has passed to its present complexity in man, we have been enabled not only to see the reasons for changes in appearances, but to simplify our methods of instructing students. I believe, with Prof. Burt G. Wilder, of Cornell University, that no medical student should be allowed to dissect the human cadaver until he has previously familiarized himself with the anatomy of the cat. If previous to this even, he should study the crayfish with Huxley's recent popular work on that crustacean as a guide, he will find that he not only has removed vast difficulties from his course of study, but will be able to continue through life an acquaintanceship with anatomical and physiological essentials, of which our present methods of teaching enable the average student to retain only a smattering, however industrious and earnest he may have been. In short, we

cannot master human anatomy without a knowledge of comparative anatomy.

The primitive typical form of the mammalian cerebrum is as simple as this figure, an oblate spheroid:



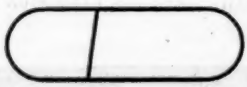
In some fishes and birds it is globular, and therefore a still simpler form.

Rotate an ellipse about its shorter axis, and then cut the figure so produced into halves in the direction of its long axis, and the low form of the hemisphere from which we start is obtained. We have now a flattened surface which has been created by the two right and left lobes pressing against each other as the brain grew faster than the skull. In some fishes the original spherical appearance of the two lobes may be seen. The fissure which separates the two hemispheres is called the GREAT LONGITUDINAL FISSURE, and this cleft is along the inner flattened faces of the hemispheres, each of which surfaces is known as the MEDIAN SURFACE. The EXTERNAL SURFACE is the outermost and uppermost part. The BASILAR SURFACE is simply the lowest or under part of the cerebrum.

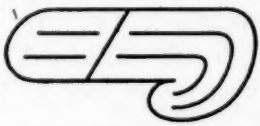
Draw two parallel lines lengthwise upon the external surface. These lines are sulci or little fissures produced by the folding in of the soft brain tissue as it develops more rapidly than the bones of the skull expand:

One such furrow may be seen on the hedgehog's cerebrum, the other is added in higher animals. But at the same time there appears another lobe growing in front of this; it is the frontal. The smallest frontal lobe, speaking relatively, is owned by the kangaroo, and adhering to our schematic representation is shown in the above cut. In the horse we find that these two lobes have crowded together, the frontal having grown much larger, but the

original line of junction between the two is still evident in a fissure which in the elephant, monkey and man is called the SULCUS OF ROLANDO:



This frontal lobe or subsequent growth also has the two longitudinal cracks in the highest mammalia. But the skull still obstinately maintains its rigidity, lifting a little on top as we pass up the scale of animals. The hemispheres press back over the cerebellum only at this stage of high development; previously the cerebellum was uncovered by the cerebrum, and now another change begins. As the frontal lobe continues to grow, it crowds the occipital part back, and the latter cannot extend in the same direction any longer, but finds room below in the posterior part of the skull, whereupon this appearance is presented:

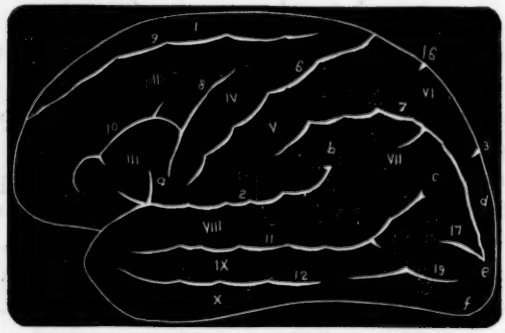


Where the posterior lobe folds under, the temporal lobe is forming, and the three great divisions of the cerebrum are more evident—the FRONTAL, OCCIPITAL and TEMPORAL LOBES. The first two are separated by the sulcus of Rolando, the last-named from the occipital by the large fissure, created by this folding-under process—the FISSURE OF SYLVIUS. The elephant's brain exhibits just this stage of development, and it is also to be seen in the human embryo.

In accomplished development the scheme of the cerebral fissures and sulci of man would be thus represented:

The temporal lobe passing forward as the olfactory lobe of quadrupeds diminishes in size and makes room for it.

But by gradual filling in of certain portions of sulci, breaks are made in their continuity and the system of folds is rendered complex. The original derivation, however, is not completely masked, for we may still trace the primitive furrows into the fully developed cerebrum of man.



The convolutions marked I, II, III, correspond in the frontal lobe to those marked X, IX, VIII. The upper posterior convolution VI being a continuation of X, while the point c of the fissure 11 has been pushed back by filling in of the space anterior to it.

The deeper furrows are known as fissures, and those less deep or constant as sulci. The numbers and letters in the following list correspond with those of the figure above:

CONVOLUTIONS OF THE EXTERNAL SURFACE.—I. Superior Frontal. II. Middle Frontal. III. Inferior Frontal. IV. Ascending Frontal. V. Ascending Parietal. VI. Superior Parietal. VII. Inferior Parietal. VIII. Superior Temporal. IX. Middle Temporal. X. Inferior Temporal.

The fissures and sulci of the external surface are: 2. Fissure of Sylvius. 6. Sulcus of Rolando. 7. Parietal Sulcus. 8. Præcentral Sulcus. 9. Superior Frontal Sulcus. 10. Inferior Frontal Sulcus. 11. Superior Temporal Sulcus. 12. Middle Temporal Sulcus. (Prof. Pansch, of Kiel, calls this the Inferior by discrediting the existence of the Inferior of other authors.) 17. Transverse Occipital Sulcus. 19. Inferior Longitudinal Occipital Sulcus.

Small parts of the convolutions conveniently designated Gyri are known as: a. the operculum (injury to which causes aphasia). b. Supra marginal gyrus. c. Angular gyrus (lesion of b and c causes blindness, etc). d. First occipital gyrus. e. Second occipital gyrus. f. Third occipital gyrus.

The median surface development proceeds in animal life as follows: With the advent of the frontal lobe, its inner face fuses with the occipital, or what becomes afterwards the parietal part of the occipital, on a line which divides the inner surface just as the sulcus of Rolando divided the external surface:

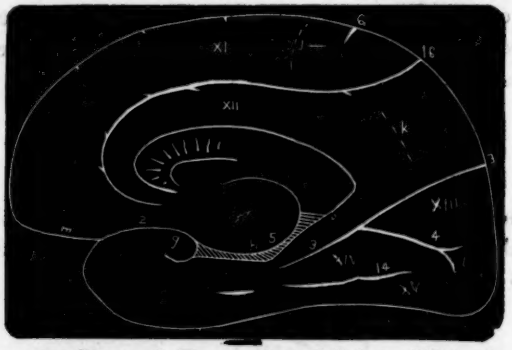
But the corpus callosum appeared in forms of life above the marsupials and prevented the backward extension of this crack. It had to pass backward over the corpus callosum thus:

And in this figure we see the corpus callosum (a broad band of fibres connecting opposite hemispheres, with the CALLOSO-MARGINAL SULCUS just above it.

As the hippocampus major was curled under and forward by the frontal lobe pressure, the rotation of it and the fornix, together with the resistance of the skull behind, folded in the PARIETO-OCCIPITAL FISSURE, which in monkeys extends across the external surface, but in man has been filled in upon that part:

When the calcar avis or hippocampus minor developed in the ape's brain, another fissure, the CALCARINE appeared:

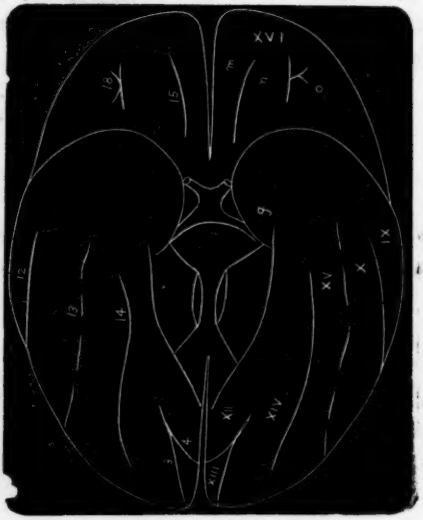
The fully developed Median surface of the cerebrum is represented in this cut:



FISSURES AND SULCI.—6. Termination of Sulcus of Rolando. 16. Calloso-marginal Sulcus. 3. Occipito-parietal Sulcus. 4. Calcarine Fissure. 5. Hippocampal Fissure. 14. Collateral Sulcus.

CONVOLUTIONS AND GYRI.—XI. Marginal Convolution. XII. Fornix Convolution. XIII. Cuneus Convolution. XIV. Median-Occipito-Temporal Convolution. g. Uncinate (or hook) gyrus. h. Dentate gyrus. j. Paracentral gyrus (lesion here always causes paralysis). k. Præcuneus, or Quadrate lobule. l. Descending gyrus.

This last cut shows the convolutions and furrows on the Basilar Surface:



Some of these parts have been mentioned under the heads of the other surfaces, as they may appear upon two surfaces. Those most clearly basilar are:

FISSURES AND SULCI.—13. Inferior Temporal Sulcus (which is an extra fold in the human brain due to the same causes that created the original external furrows—want of cranial osseous expansion). 15. Olfactory Sulcus (produced by the olfactory lobe, which in man has dwindled to a mere tract.) 18. Orbital Sulcus (which lies directly over the orbit and is created by lateral and frontal pressure).

CONVOLUTIONS AND GYRI.—XV. Lateral Occipito-Temporal Convolution. XVI. Orbital Convolution. m. Gyrus Rectus (inwards from and along olfactory sulcus). n. Middle Orbital Gyrus. o. Lateral Orbital Gyrus.

In addition to such fissures and sulci as are of constant appearance, a great number of sulculi or lesser furrows of an inconstant nature are also present, these of course cannot be enumerated. In young children and imbeciles the sulcus of Rolando will be found much farther toward the front than in fully developed brains. This is because the frontal lobe has suffered arrest of growth. This sulcus appears very close to the front in idiots and their retreating foreheads are cranial adaptations to this cerebral defect.

There are several expensive plaster models of the cerebrum on sale, one of the poorest of which retails for about ten dollars. Several much better models by German and French anatomists of note are also on the market, but their cost places them beyond the reach of the many. I have carefully examined the literature of the subject up to very recent dates, and by combining authoritative descriptions with a great number of casts I have made of brains from hospitals and insane asylums in Illinois, have recently had a large number of copies of my model made and placed on sale at two dollars each. They may be purchased of E. H. Sargent & Co., surgical instrument dealers, No. 125 State street, Chicago. The price fixed barely covers the expense of their manufacture. At the outset I had no intention of having these casts made, but, having been called upon for so many copies, I felt compelled to hand the model and its copying over to the medical supply store mentioned.

By means of this cheap cast, with this paper, and even as inaccurate a work as Gray's Anatomy, the student can in a few hours master much of the subject; but, as before remarked, it is far better to study nature direct, if possible. In the *Journal of*

Nervous and Mental Disease for October, 1879, April, 1880, and October, 1880, I have somewhat fully detailed my investigations and those of others. The articles referred to are respectively entitled "Cerebral Topography," "The Sulcus Rolando and Intelligence," and "The Plan of the Cerebro-Spinal Nervous System."

ARTICLE II.

BATTEY'S OPERATION. Discussion before The Chicago Gynæcological Society, September 17th, 1880. Introduced by A. REEVES JACKSON, M.D. President, DR. BYFORD, in the chair.

In September, 1872, Dr. Robert Battey, of Georgia, published an account of a new surgical operation which he denominated Normal Ovariotomy, and related a case in which he had performed it successfully. The patient was a young lady who was suffering from great impairment of health apparently dependent upon an excessive menstrual molimen, which was not relieved by the usual menstrual flow. All the customary remedies having failed to afford relief, Dr. Battey conceived the idea of artificially and prematurely determining the menopause by removal of the ovaries. This was accordingly done; and the patient recovered with greatly improved health.

This operation was repeated a number of times by its author and others, and the appellation first given to it by the former, being obviously a misnomer, it was re-christened and is now commonly known as "Battey's Operation."

The objects of the procedure are two-fold: (1.) To effect a cure of the various maladies present, by the removal of an ovary viciously or abnormally performing its functions. (2.) By the removal of both ovaries to put an end to ovulation and at once bring about the "change of life."

At the inaugural meeting of the American Gynæcological Society, held in June, 1876, Dr. Battey read a second paper, in which he gave the details of ten cases in which he had performed the operation down to that time; and, as a good deal of misunderstanding was prevalent among the profession as to what cases

were proper for it, he stated that it was indicated "in the case of any grave disease which is either dangerous to life or destructive of health and happiness which is incurable by other and less radical means and which we may reasonably expect to remove by the arrest of ovulation, or 'change of life.'" In three of the ten cases reported by Dr. Battey, a single ovary was removed; in the remaining seven both ovaries were removed; the result being eight recoveries and two deaths.

In the following year Dr. Battey presented another paper to the American Gynæcological Society, entitled "Is There a Proper Field for Battey's Operation?" in which he details two more cases of the operation done by him, and specifies the indications for its performance as follows:

1. In those cases of absence of the uterus in which life is endangered or the health destroyed by reason of the deficiency, the removal of the ovaries is at once the hopeful, and the only means of permanent relief.

2. In cases where the uterine cavity or vaginal canal has become obliterated and cannot be restored by surgery, if grave symptoms be present, the removal of the ovaries becomes a last and only resort, and may be hopefully invoked in the case.

3. In cases of insanity, or confirmed epilepsy, dependent upon uterine and ovarian disease, the operation is justifiable as a last resort, and when other means of cure have failed.

4. In cases of long protracted physical and mental suffering, dependent upon monthly nervous and vascular perturbations, which have resisted persistently all other means of cure, the question of a resort to the operation is to be committed to the prudent judgment of the conscientious practitioner in each particular case.

In addition to the foregoing, the operation has been performed for the relief of other conditions; notably, for cases of fibroid tumors of the uterus in which excessive pain and hemorrhage could not be controlled by other means, for the removal of otherwise incurable, prolapsed ovaries, in which grave mental and physical sufferings seemed to depend upon the displacement, as for ovarian dysmenorrhœa.

In the performance of the operation Dr. Battey prefers the

vaginal method, while many others, perhaps the majority of operators, prefer the abdominal.

Dr. George J. Englemann, of St. Louis, published a paper in the *American Journal of Obstetrics* for July, 1878, in which he gives the history of three fatal cases of the operation occurring in his own practice, and adds a table showing the result of thirty-six cases, in which the operation had been performed in this country and in Europe. Of this number there were 30.5 per cent. of deaths, and 69.5 per cent. of recoveries. Of those who recovered from the operation there were:

Cured	22.8 per cent.
Greatly Improved	11.4 "
Somewhat Improved	11.4 "
Not Improved	17.2 "
Made Worse	8.6 "

Now, if we add to the number of those who died, 30.5 per cent. the number of those in whom there was no improvement, 17.2 per cent., and those made worse, 8.6 per cent., we have a total of 56.3 per cent. of failures against 43.7 per cent. of successes; for while in ovariotomy, performed for the removal of cystic or other disease which is destroying the life of the patient, we count it a success when we save that life, a successful case of Battey's operation implies not only the saving of the patient's life, but also the removal or mitigation of her suffering.

Yet, notwithstanding this rather unfavorable showing, I heartily approve of the operation, although I believe it should be confined to a very limited field.

The points of special interest in this subject, and the ones to which I trust it may be the pleasure of the society to limit the conversation, are:

1. The proper indication for the operation.
2. The method of its performance.
3. The results.

DISCUSSION.

DR. NELSON recognized the importance of the operation in certain cases, but the danger to life and the risk of failure should prevent its becoming a frequent resort. It is a matter of impor-

tance in operating that the entire ovarian tissue be removed, else the operation might fail in its results.

DR. MILLER asked concerning the indications for the operation: Are we to assume that the operation will cure all diseases which are said to constitute indications for it? For example, in the periodical attacks of epilepsy which some females suffer in ome connection with their menses, are we *to* hope that these attacks will cease after the operation? Is it true that ovarian irritation modifies epilepsy and makes it assume a particular character?

DR. SAWYER inquired as to the effect of this operation upon the sexuality of the subject. Do the feminine characteristics become less prominent in consequence of the contraction?

DR. BARTLETT remarked that the author of the operation had performed it before the Listerian method was in vogue, and now that this method is so well established we may hope for a smaller mortality from the operation. In reply to Dr. Miller, the speaker suggested that epilepsy might recur, after this operation, from habit.

THE PRESIDENT thought that the indications for this operation, which were generally laid down, were largely fanciful. For example, the absence of the uterus, the ovaries being present. He had met with seven such cases, but in no instance was there suffering such as would constitute an indication for this operation. Menstrual disturbances often depend upon the general condition of the patient. Hystero-epilepsy especially was one of these general disturbances. The speaker mentioned the case of a woman who had been under his notice for some years, from whom the ovaries had been removed for the purpose of mitigating the severe hæmorrhages incident to uterine fibroids. The operation had failed utterly, and the fibroids have constantly increased in size. In answer to Dr. Sawyer's question he would say, that in five cases in which the patient was interrogated there was absolutely no diminution in these sexual feelings. Nor was the appearance of the person changed. In this connection he desired to add that in three cases the menstrual flow had never appeared after the operation.

In conclusion, Dr. Jackson said: In deciding upon the proper

indications for Battey's operation we should remember that its author has never proposed it as an alternative for any other remedy; nor for any case in which other means have not been persistently and judiciously used and *failed*. He has always held that it should be looked upon as a last resort, more or less hopeful, in cases where there is nothing else to be done,—where the choice is between the operation, and the good it *may* accomplish, on the one hand, and the prolongation of a life of misery and wretchedness, or death, on the other hand. In this respect he has always shown himself exceedingly conservative.

So far as the statistics of the operation show, it has been more successful in relieving the pain and hemorrhages due to the presence of uterine fibrous tumors than in any other class of cases; six of this kind having been reported, with one death.

As regards the mode of performing the operation, I quite agree with the President (Dr. Byford), that the selection of the vaginal or abdominal method should depend upon the circumstances of the case. If the ovaries were low down, or could be easily pressed down so as to be felt through the vaginal vault; and if I could feel tolerably certain that they were not imbedded in inflammatory exudations, or that the neighboring structures had not been the seat of recent inflammation, I should prefer the vaginal route; although ordinarily I should select the abdominal. But, I cannot agree with the opinion expressed by him, that an unsuccessful attempt to operate by the vagina, would seriously complicate the case were we to find ourselves compelled to finish by way of the abdomen. It would not involve much loss of time to enable us to learn whether, from any cause, the operation, per vaginam, were feasible, or otherwise; and we could then proceed to open the abdomen in the usual manner and leave the vaginal opening for subsequent drainage, or close it as we might prefer.

There are two great objections to the vaginal mode. One is the uncertainty as to effecting thorough removal of the ovary, especially when it has become degenerated; and the other is, the very great difficulty in the way of checking hemorrhage in case it should occur. Dr. Battey, who prefers the vaginal operation, and has nearly always chosen it, found it impossible to remove all of the diseased ovarian tissue in four out of twelve cases.

In reply to questions asked, I would say that it is now conceded on all hands that in any case requiring the operation, *both* ovaries should be removed.

The experience of Atlee, Battey, and others, together with that related here to-night by the President, and the facts in a case which occurred to myself, show very clearly, I think, that the womanhood of those who have undergone double ovariotomy is not changed in any respect by reason of the operation.

ARTICLE III.

THE LATEST EXPERIMENTS IN CONTAGION AND PROPHYLACTIC INOCULATION SUMMED UP. By H. D. VALIN, M.D., Chicago.

The author in his Inaugural Thesis on the Philosophy of Disease, presented to the medical faculty of the University of Vermont, in 1879, recapitulated thus the views held at that time by the best writers on the germ theory of disease: "The contagium of infectious diseases is regarded by some authors as too minute to be discovered by the microscope; by others, as bacteria which cannot be distinguished from those generally found in many pathological processes in the body. The spread of the contagium requires a region (an habitat) wherein it has always been endemic, as India for cholera, and Ireland for typhus fever, unless we accept for it a theory of spontaneous generation. It also requires a certain age, sex, and predisposition on the part of the individual, and its extension is promoted by warmth, moisture and filth; these accessory circumstances explaining how there may be degrees in contagion. Each infectious disease must, beside, have special bacteria assigned as its cause."

These conclusions, drawn from a perusal of the first three volumes of Ziemssen's Cyclopædia of the Practice of Medicine, were little more than theoretical, but recent experiments have strengthened the germ theory, and it may finally fill the gap so long left in the etiology of the most important diseases.

Prof. Lister read before the annual meeting of the British Medical Association an interesting paper upon "Micro-organisms:

their Relation to Disease." It is thus recapitulated in the *N. Y. Medical Record:*

"Prof. Lister first detailed the results of the experiments of Dr. Koch, of Wolstein. By ingenious methods of staining, that investigator had been able to detect not only the *bacillus anthracis*, which causes anthrax, but he discovered other specific micro-organisms. These were the *bacillus septicæmiæ* and the chain *micrococcus*, the latter always causing gangrene when injected into house mice.

"The *bacillus septicæmiæ* is an extremely minute organism, and would be invisible unless stained. Dr. Koch had been able to prove that it always caused septicæmia, never pyæmia, when injected into mice.

"Prof. Lister then described the micro-organism discovered by Toussaint in fowls suffering from fowl-cholera. This fowl-cholera is a highly infectious blood disease, characterized by the swelling of the lymphatics of the neck, pericarditis and duodenitis, but without diarrhœa. The bacterium claimed to be the cause of the fowl-cholera, is oval shaped, multiplies by transverse constriction, and is about $\frac{1}{40,000}$ of an inch in diameter. Pasteur has cultivated this organism, and has been able to modify it, so that by injecting the modified fluid he can cause a mild form of fowl-cholera—protective against a second attack. In the same line of inquiry, Dr. Greenfield, by experiments, has recently shown that if a guinea-pig be inoculated with the blood of a heifer suffering from splenic fever, the former animal takes the disease; if now the blood of the guinea-pig be inoculated in a healthy heifer, it will protect it against splenic fever. Prof. Toussaint had performed similar experiments in regard to 'vaccinating' for anthrax. But he went further; he showed that the protective power is not conferred *by inoculating any form of the bacillus anthracis, but by inoculating the fluid in which it had grown.*"*

In conclusion, the speaker describes the ingenious experiments of Dr. Buchner, of Munich, by which he had transformed, by cultivation, the *bacillus anthracis* into the hay-bacillus and *vice versa*. A record of some of those highly interesting experiments follows as translated from the originals.

* Italics ours.

Dr. Edouard Fournié, in his periodical,* thus analyzes the experiments on anthrax:

"The question of the contagious elements of disease has lately been revived, thanks to the communications of Pasteur, Colin (of Alfort), Chauveau, Poincaré and Toussaint on anthrax.

The paper which Pasteur lately presented to the Institute and the Academy of Medicine (Paris), aims at showing experimentally the nature and pathogeny of anthrax. The author does not recognize any spontaneous origin of diseases. Every one of these has its material cause, and anthrax is always produced by the *bacillus anthracis*. That was the point to be demonstrated.

In a first series of experiments, Pasteur fed several sheep some lucern which had been sprinkled with water holding bacteria and germinal corpuscles of the latter. In order to facilitate inoculation through abrasions, care was taken to mix thistles and beards of barley with the food. It resulted in the death of a few, and the survival of the majority of the animals, notwithstanding the enormous quantity of the bacteria injected. Autopsy showed the characteristic lesions of anthrax, having their starting point in the mouth and the pharynx.

In another series of experiments, Pasteur inoculated eight sheep with bacteria. All were taken sick with a rise in their temperature, but only one died; one had been inoculated under the tongue. These unexpected results contravene our knowledge the more as Pasteur claims to vaccinate efficiently fowls by submitting to them a food contaminated by the bacteria of fowl-cholera.

The foregoing experiments led Pasteur to suspect that cattle which die suddenly with anthrax, in the department of Eure-et-Loir, are themselves infected with the *bacillus anthracis* mixed with their food. But where would the germinal corpuscles come from?

Pasteur discovered that their origin was in the cadavers of animals dead from anthrax and buried in the soil. Davaine and Colin had remarked that bacteria are destroyed by putrefaction, but their germinal corpuscles, according to Pasteur, resist that

* Revue Médicale Franç. et Etrangère, July 31st.

influence, and these on being carried to a favorable medium pass from a latent to an active life and become bacteria.

After digging some earth from the bottom of pits in which cattle dead from anthrax had been buried two years previously, Pasteur found germinal corpuscles in it, and succeeded in inoculating and killing animals with anthrax.

The manner in which anthrax germs come to the surface is explained thus: It is shown that earthworms, after feeding on the corrupted dirt come to the surface where they deposit their excrement which contains a large number of germinal corpuscles. These, after drying are blown by the wind in all directions, on plants, flowers and on the abrasions common on the skin of cattle.

Says Pasteur: "The results suggest the possible influence of soils in the etiology of disease, the danger which may result from graveyards, the usefulness of cremation!"

The experiments lately reported to the Institute, by Dr. Poincaré, substantiate the researches of Pasteur.

Nineteen cattle having died of anthrax, on a farm in the vicinity of Nancy, Mr. Tisserand, a veterinary surgeon, thought the cause of that local epizootic should be referred to a stream of muddy water flowing through the pasture. Dr. Poincaré demonstrated the presence of bacteria in the blood of the diseased animals, and in water from the stream; and he injected some of the water into an animal which soon died with characteristic symptoms of anthrax.

Some time ago, Dr. Chauveau communicated to the Institute the results of experiments which he made in Algeria, with an aim at determining the nature of the immunity of Algerian sheep from anthrax.

These were his conclusions:

"All the sheep indigenous to Algeria enjoy in a lesser or greater degree an immunity from splenic fever, and can impart this immunity to European sheep by crossing. That immunity is congenital and natural. French sheep, breeding in Algeria, do not acquire it, but it is not proven that Algerian sheep, breeding in France, may not lose it. Hence we are not allowed to deny some influence to the Algerian medium, at least in what pertains

to the preservation of that immunity which Algerian sheep possess."

An eminent experimenter, Prof. Toussaint (of Toulouse), has just brought to the notice of the Institute facts of great interest. He has ascertained, as a first step, that bacteria, even in the animals in which anthrax is most apt to occur, do not reach their maturity in the body where they are first received and which they destroy; they never produce germinal corpuscles in it, but multiply through a division of the mycelium. Furthermore, he has ascertained that some animals, as the swine, never take anthrax, although their conditions of life resemble very much those of other species attacked most readily. He also noticed that some animals easily catch anthrax in their youth, and lose that predisposition in adult life and old age, e. g., the dog, the horse, the ass and others.

These facts led Toussaint to inquire into the conditions which render an organism proof against the action of bacteria. His manner of proceeding consists in depriving the blood of animals sick with anthrax of its bacteria through filtering, in raising its temperature to F. 130°, and inoculating it in the groin and the neck in the neighborhood of lymphatics. The result of the inoculation is slightly manifested locally, and the blood is modified and becomes proof against the growth of the *bacillus anthracis*.

The following are his conclusions:

1. The blood of animals suffering from anthrax, divested of its bacteria, does not communicate that disease, but an affection *sui generis* which imparts to the organism an immunity against anthrax.

2. The germinal corpuscles, whose office is so important according to Pasteur, do not exist any longer in the blood after filtering.

3. An infectious liquid may produce a pathological change, although deprived of bacteria and germinal corpuscles.

4. The lymphatics have a necessary office in the production of infection, as previously proven by Cohn.

Here is an extract and translation from another important paper presented to the French Institute by Dr. M. P. Miquel,*

*Revue Méd. Franç, et Etrang, July 24th.

stating some of the laws which govern the spread of the germinal corpuscles of bacteria:

"Through processes of breeding, the details of which are too full to state here, I have succeeded in securing and enumerating the germs of bacteria, and could ascertain that, although these germs are always present in the atmosphere, as results from the experiments of Pasteur, their number depends on incessant variations.

"Accordingly, *the number of atmospherical bacteria, very small in winter, increases in the spring, reaches its height during summer and the first part of autumn, and rapidly diminishes during frost;* the same law can be applied to the sporules of fungi, but, while these are numerous during damp weather, the quantity of bacteria is at the same time diminished, and rises again when the soil becomes dry; precisely during the time when the sporules of fungi become rare.

"Until we are able to prepare a liquid in which the germs of all sorts of bacteria can grow equally well, it will be difficult to know the exact number of bacteria contained in a given volume of air. On experimenting with neutral broth, totally deprived of organisms, it results that the average number of bacteria living in a cubic meter of air, does not exceed 200; this would lead us to believe that the atmosphere contains 100 times more sporules than bacteria. But unluckily, experience proves every day that the medium of nutrition has a great influence over the growth of bacteria; here is an instance, the *bacillus ureæ*, a very active agent of ammoniacal fermentation, and an organism perfectly distinct from the *micrococcus* ferment of urea, studied by Pasteur and Van Tiegen, grows well in urine, and in liquids containing urea, but is unable to grow in neutral broth. However it may be, the last liquid is altogether a favorable medium for the growth of a great number of species, and gives results whose greatest merit is a comparative one.

"During summer and autumn, times happen when a thousand bacteria are found in a cubic meter of air at Montsouris, (Fe.). In winter, this number often decreases to four or five, and days come when the dust contained in 200 liters of air is incapable of producing the infection of the liquids most easily affected.

"Inside of buildings, mechanical agency, as currents of air, being excluded, it requires from 30 to 50 liters of air to determine some change in the liquids; in my laboratory, the dust of five liters of air usually alters neutral broth; in the sewers of Paris, the infection of the same liquid is produced by the germs held in a liter of air.

"These results are very different from those published by Tyndall, according to whom a few cubic centimeters of air would in most cases be sufficient to infect various infusions. The interest brought to bear on bacteria, the presumed cause of infectious diseases, has led me to compare the number of deaths, caused by that class of diseases in Paris, with that of the bacteria contained in the atmosphere during the corresponding period. From such a comparison, extending from December, 1879, to June, 1880, it results that *every increase in the bacteria of the air is followed eight days later by an increase in the deaths from contagious and epidemic diseases.*

"I will prove later that contrary to the opinion held by many authors, watery vapor arising from the soil, the rivers, and putrefying masses, is always pure, that the gases arising from buried cadavers, are always deprived of bacteria; that the foul air directed through putrefying meat, far from loading itself with bacteria, is entirely cleaned, provided the infectious and putrid filter remains as damp as the soil, 30 cm. beneath the surface.

"Before closing, I must grant that to this day, none of the numerous species of bacteria which I isolated and inoculated into living animals has given rise to any pathological process worthy to be mentioned."

These propositions would acquire a greater importance if the experimenter had been able to prove that all species of bacteria are subjected to the same laws of existence, but that is not at all probable. Applying to them the law of natural selection, we can easily infer that the growth of one kind of bacteria excludes to a great extent that of another. This is the more probable as statistics prove that an epidemic of one or two of the infectious diseases is generally accompanied by a diminution in other diseases belonging to the same class, in the same locality.

The promises of Dr. Miguel are very brilliant, and we may

still expect better results in that branch of inquiry. The truth is that this subject is not by any means exhausted, and that the germ theory, like all scientific achievements, requires a great deal of material and skill for its construction.

186 BLUE ISLAND AVE.

ARTICLE IV.

HYSTERICAL MUSCULAR CONTRACTIONS.

By W. T. SPEAKER, M.D.

There is scarcely a muscle or group of muscles in the body which may not become the seat of muscular contraction; this fact has long been known to the profession, but resemblance to organic disease is such that physicians and surgeons are still deceived by its counterfeits. Hysterical conditions of the muscular coats of the intestines are of most frequent occurrence, in producing great pain and nervous disturbances. I have met several cases in my practice, of hysterical muscular contraction, which makes its appearance in the form of a tumor. The several which I have seen were in the flat muscles of the abdomen, and in either case they were not accompanied with pain. They had remained a considerable length of time without any treatment; no enlargement or diminution was observed, but under full doses of the bromides they rapidly disappeared.

Spasmodic stricture of the urethra, caused by intense emotional excitement and accompanied by various hysterical phenomena, is so commonly met with in ordinary practice that it scarcely escapes the attention of the physician or surgeon. The diagnosis of these cases is not very difficult to obtain, if close attention is paid to the clinical history of the patient. It will generally be found that there have been other indications of the hysterical conditions present; that these contractions have made their appearance at other times and, like "phantom tumors," have duly disappeared. One case which I have had under my care the last year, is that of a woman thirty-five years old, married, with two children. This lady has frequently called my attention to a

tumor situated in the posterior part of the latissimus dorsi muscle. Several times I have noticed an intense contraction of the muscle, at other times none whatever. These contractions seem to be produced by a power of the will or from a diseased functional disorder of the brain. Another case is that of a girl thirteen years of age. When first called to see her, my observation was that it was a case of wry neck, but upon a close diagnosis I discovered an intense contraction of the right sterno-cleido-mastoid muscle, and the head was drawn violently in the direction opposite to that which had formerly existed. The affection had developed suddenly, so far as she knew, without obvious cause, and was unaccompanied with pain. Her general health up to this time had been good. The treatment consisted of plenty of fresh air, occasional drives, and cold baths. Medically the bromide of zinc proved efficient in relaxing the tension of the muscle. The formula was as follows: ℞. Zinci bromid. ʒij, aquæ dist. ʒij. M. S. Ten drops three times a day, increasing a drop at a dose for each day. I increased the dose until she was taking about forty drops three times a day.

Another case was that of a young married woman. I was called in early one morning and found her laboring with what she presumed to be a miscarriage. The symptoms, on entering the room, led me to think she was in the third stage of labor, with the pains coming on from five to ten minutes. Upon examination I did not observe any dilatation of the os uteri, nor the least contraction of the uterus, but severe contractions of the abdominal muscles. I watched the case closely for nearly an hour and left, fully convinced that it was purely hysterical. I gave full doses of bromide of potassium, and in less than twenty-four hours all symptoms had subsided, and there was no further trouble until confinement.

About one year ago I was invited to see a young lady sixteen years of age, in company with Dr. B., a neighboring physician, who informed me that the lady was suffering from an atrophy of the muscles of the right leg. She had been under treatment for about one year for this trouble, but without any perceptible improvement. There was a slight contraction of the flexors of the

leg, and the atrophy gave the appearance of an enlargement of the knee-joint, which, however, I was confident did not exist. Although the patient declared that she could not straighten the limb, and that every effort to do so gave her great pain, I seized the leg with one hand and the thigh with the other and forcibly extended the knee-joint. There was no great degree of pain produced, and though the flexed position was again assumed, I was confident that by proper treatment the limb could be restored to its normal condition. Faradization was now applied for the benefit of the atrophied muscles; the joint was repeatedly flexed by passive motion, the muscles were kneaded for a half-hour morning and evening, and she was encouraged to use the member by walking on it and flexing it by voluntary power. She drove out every pleasant day in the pure air, and was allowed to participate in any light and enjoyable amusement. The free use of the bromide of sodium was given with the bitter tonics. These means were entirely successful, and a year has now passed and she is entirely free from any hysterical trouble whatever.

Hysteria in all its varied aspects is usually recognized without any difficulty. A few isolated symptoms of the disease will suffice to reveal its nature to the practiced eye. The object of this paper has been to call attention to a class of disorders liable to be mistaken for others of a more serious import, and to the fact that recovery is frequently the apparent result of emotional disturbance. Among the physical influences, those of a depressing nature have the most marked effect upon producing or developing this disease. Thus in the treatment if we can bring the mind to bear upon this disease, and produce a different degree of thought and feeling, a cure is often accomplished. Therefore it is easy to see why the great army of mesmerizers, magnetizers, magicians, spiritualist mediums and quacks produce such an influence upon their patients. It is generally implied that these phenomena are of merely a functional, subjective character, more or less dependent on the state of the mind, more especially the will, and that a change of the mental condition has been naturally followed by a change in the phenomena, although apparently physical. Such is the broad definition of the imagination, as it presents itself to the mind when employed in reference to medi-

cal facts of every day occurrence. It matters little to the patient by what name the remedy is called, whether "imagination" or some of the "pathies" of the day; but to the philosophical practitioner it ought to matter a great deal; it ought to be a question of exceeding interest.

MOUNT MORRIS, ILL., Sept. 30, 1880.

PARIS HOSPITALS.—The Paris correspondent of the *Lancet* says: Now that public attention has been forcibly called to the insanitary condition of the town generally, it would be well if some influential organ would protest against the disgraceful condition of several of the Paris hospitals. The Hôpital Laennec, for instance, is very little better than a slaughter-house for incurables. The wards situated upon the ground-floor are especially badly kept. Odors which emanate from the closets, impregnate the atmosphere and culiminate in an almost insupportable stink. Close to the small dungeon which is used as a speculum-room, a few days since I noticed, with surprise, on the clothes of a woman some lively specimens of the *Cimex lectularius*, and on expressing my astonishment to one of the pupils he informed me that the insect has its habitat at Laennec. He furthermore volunteered the statement, which is probably strictly true, that a few months' residence at that institution is sufficient to tuberculize the strongest inmate.—*Louisville Medical News.*

PRESERVATION OF THE COLORS OF DRIED PLANTS.—M. Stoebzl states that this is most effectually done by passing the plant slowly through a solution of one part of salicylic acid in six hundred parts of alcohol, heated to boiling point in an evaporating vessel (*Journal de Pharmacie*). The superfluous liquid is then to be shaken off, and the plant placed between blotting-paper and pressed as usual. The blotting-paper must be frequently renewed, especially at first. Plants so treated dry rapidly, and preserve their natural colors more perfectly than under any other procedure.—*Louisville Medical News.*

Clinical Reports.

NOTES FROM PRIVATE PRACTICE.

ARTICLE V.

AURAL COMPLAINTS IN CONSEQUENCE OF MALARIA. A CASE OF PRIMARY POST AURAL ABSCESS WITHOUT IMPLICATION OF THE MIDDLE EAR. *Archives of Otology*, Vol. IX, No. 3, Sept. 1, 1880. BY F. C. HOTZ, M.D., Chicago.

Under the first of the above heads appears a brief summary of the literature of malaria in its relation to affections of the ear, supplemented by the narration of three well marked cases which had been patiently and persistently treated by topical measures without effect, but yielded readily and permanently to the administration of quinine. The first and third cases are so interesting that we deem a summary of them to be of great importance to the general practitioner. For the same reason we give also Dr. Hotz' general conclusions based upon those cases.

Lady, thirty-five years. Subject to chronic nasal catarrh and sore throat. March 1876, acute aggravation. Throat symptoms relieved by nitrate of silver. On the advice of some "good friend," cold water was drawn into the nose. Sharp and severe pains and fullness was immediately felt in right ear. Agonizing pains during night. Ear felt as if filled with water. Watch not heard at all. Shrapnell's membrane being distended, was punctured; leeches applied, but relief was only temporary.

April 4th, the day following, external meatus filled with pus; pain moderate in morning, became severe at night. Mastoid process was tender but devoid of redness or swelling. External meatus was so sensitive that the mere gentle injection of tepid

water was exceedingly painful. Leeches, poultices, turpentine emulsion produced no benefit.

April 7th, four grains of quinine every two hours. Free from pain all night; no tenderness over mastoid process; injection of water gave no pain. April 15th, discharge ceased and perforation healed. Patient still complained of a little fullness, which was relieved by the air douche, and a continuation of small doses of quinine.

On the above case Dr. Hotz remarks: The inflammatory process so clearly started by the cold water could not be reduced by local treatment. Paracentesis of the drum-head added to the severity of inflammation. A remarkable disproportion existed between the subjective and objective symptoms.

The third case, male forty-eight years. Very annoying soreness about the left ear and left side of head, particularly in region of left parietal bone. Slight redness over mastoid region, no tenderness or swelling. Redness probably due to irritants used. Two swollen and tender glands in sub-auricular fossa. External meatus red and swollen so that inspection of membrana tympani was difficult. The membrane, however, was perforated, and the edges red and swollen. It had been of three weeks' standing, and the patient, according to his family physician, had had several attacks of syphilitic affections of the bones. Watch was not heard at all by left ear.

The result of treatment, extending over four weeks, Dr. Hotz sums up as follows: Constitutional treatment by iodide of potassium, ten grains three times a day, had accomplished nothing, and local remedies had shown a decidedly bad effect; the present state of ear about the same as before treatment.

Questioning the patient again for more light on the history of the case, Dr. Weber Liel's *otitis intermittens* revealed itself, with the general characteristic of malaria. April 8th, began taking twenty grains of quinine daily, and from that time the disorder began to disappear; and on April 20th head was free from pain, meatus of normal width, no discharge from ear, opening in drum-head closed; can hear the voice very well, and watch, when in contact.

The intolerance of the ear for local remedies together with the

disproportion between the morbid changes in the ear and the degree and extent of the nervous symptoms, may be regarded as good evidence of the malarial character of the aural affection.

Under the second heading the following case, here briefly summarized, is detailed and discussed:

Carpenter, forty-five years. No previous history of ear trouble except defective hearing. Awoke in the night of January 15, 1878, with violent pain behind left ear; in the morning the left mastoid was swollen and tender. Blisters, leeches, poultices, produced no benefit, but relief from pain occurred with the appearance of pus in the external auditory canal. After two weeks the discharge stopped and pain returned; this alternation continued for six months, during which time the swelling gradually extended down the tissues of the neck. General health gave way, appetite and sleep forsook him, and his brain became so irritable that he could not read two lines without feeling dizzy and nauseated.

On July 24th, when Dr. Hotz saw him for the first time he was pale, emaciated, despondent. The integument of the left auricle and post aural region was deep red. Considerable swelling of post aural region, no tenderness. Swelling slight over mastoid region, but increased at the top of mastoid process, marked and fluctuating in sub-auricular fossa; upper end of sterno-cleido-mastoid muscle swollen, and head kept inclined to left shoulder, with face turned to right side. Change from this position and opening of the mouth was painful.

External auditory canal was neither red nor swollen, no perforation of membrane was found, but in the posterior wall at the juncture of the cartilaginous portions, was a small elevation with a minute opening at its vertex. A small probe introduced into this opening could not be advanced towards the middle ear or the mastoid cells, but passed readily toward the top of mastoid process; and on pressure in the sub-auricular fossa muco-purulent matter exuded. The hearing in both ears was almost equally defective.

The limited extent of the affection after so long a period—six months—the swelling of the upper end of sterno-cleido-mastoid muscle, the fistulous opening at the juncture of the cartilaginous

with the bony part of external meatus with the fact that a probe could be passed in the direction of the mastoid process determined the diagnosis as subperiosteal abscess.

A deep incision, July 27, was made behind the ear from the line of the orifice of the external meatus to the insertion of sterno-cleido-mastoid muscle. No pus; periosteum and bone healthy, but on extending the incision one inch further down into the more swollen tissues of the sub-auricular region, a cavity was reached containing a large amount of muco-purulent secretion. This cavity was demonstrated to connect with the opening into the external meatus. The wound being cleaned and a drainage tube kept in it, all distressing symptoms soon disappeared. On September 8th, wound behind the ear was cicatrized. External auditory canal as normal as the other side.

ARTICLE VI.

I. A Case of Poisoning by Duboisia. II. A New Mydriatic—Homatropin. By E. L. HOLMES, of Chicago.

(Read before the West Chicago Medical Society.)

I. Mr. L. B., sixty-five years of age, in excellent health, a patient at the Illinois Charitable Eye and Ear Infirmary, during convalescence after Graefe's operation for cataract, was provided with a small bottle of sulphate of duboisia, gr. j to ℥ j, in place of sulphate of atropia, which caused considerable conjunctival inflammation.

On the 27th of April, about 9 o'clock in the evening, Mr. B. took by mistake a "teaspoonful" of the solution. It cannot be determined whether the teaspoon was quite full.

The patient at once informed other patients near him that he had taken the wrong solution, but concluded to await the result, before reporting to the nurse. In about ten minutes there was dryness of the throat, and in half an hour a peculiar sensation in the legs, then in the thighs, arms and other parts of the body, as if they were asleep. At the end of three-quarters of an hour or more, the patient could scarcely talk or stand. Strange to

say, not till this time did it occur to the patient or those around him to call the nurse.

An active emetic was at once given with the apparent effect of entirely relieving the stomach of its contents. Without delirium the patient rapidly passed into a state of unconsciousness, and remained in this condition till about five o'clock in the morning. He complained for two days of muscular weakness in the legs and arms, and especially noted a peculiar jerking action of the muscles of the arm in extending the hand to grasp a glass or other object.

I saw the patient at midnight. He was lying quietly, breathing naturally, but in a stupor from which he could not be aroused. The face was not specially flushed, although the mouth and tongue were remarkably dry. Dr. B. W. Griffin, who had been with the patient two hours, informed me that the temperature, as determined by the thermometer, had been normal. The pulse varied from 108 to 112. Some time previous to this, before unconsciousness became quite complete, the patient made ineffectual efforts to sit up in bed. The pulse always fell to 80 when the patient was supported in a sitting posture, and increased in frequency again on reclining. No other symptoms were noticed.

About an ounce of brandy in water was administered in minute doses during the night. Morphine was not given as an antidote.

I have observed four cases of serious atropine poisoning, in all of which wild delirium was a very prominent symptom.

It is claimed as a chief advantage in the use of duboisia that it scarcely ever causes irritation of the conjunctiva and skin which not unfrequently attends the use of atropia. I have seen one case, however, in which duboisia produced these troublesome symptoms. This agent and its properties are now quite extensively described in the recent works on materia medica and therapeutics. I need not dwell on the subject here.

It may not be out of place, however, to state that Prof. Ladenburg, of Kiel, claimed, some time since, to have demonstrated that duboisin, hyoscyamin and daturin have the same chemical composition and properties. "From these investigations it appears that atropin and hyoscyamin are the only two mydriatic

alkaloids. These two, although not identical, are isomeric in composition and otherwise very closely related."

II. Prof. Ladenburg has quite recently discovered a new mydriatic which he calls "homatropin."

Writers in different journals state that this substance is an active mydriatic and paralyzer of the accommodation, with the advantages that it does not irritate the conjunctiva and integument and is not very poisonous. Its effects subside in a few hours, while those of atropine continue ten or even fourteen days.

I have not had access to papers on the chemical properties of this new agent, but am indebted to Prof. W. S. Haines for this brief account of them. He states that Prof. Ladenburg has made a particular study of atropine and its derivatus. He has obtained several alkaloids from atropine, which he calls tropeines. Homatropine is prepared by the union of tropeine and amygdalic acid.

ARTICLE VII.

PROLAPSE OF THE BLADDER IN A CASE OF LABOR.

By H. D. VALIN, M.D., Chicago. (Reported at a meeting of the West Chicago Medical Society, Oct. 25th.)

On October 23d, at 4 p.m., I was called to attend Mary B. in her seventh confinement. She was at the eighth month, and labor was brought on by over-work. A first examination revealed a pediculated tumor projecting between the labia and out of the vulva. The anterior wall of the vagina could be traced from the meatus urinarius around the tumor to the anterior lip of the os uteri, which could be easily reached, and was dragged downward and toward the symphysis pubis. A fold of the tumor pressed between the fingers was a few lines in thickness, being composed of the fundus of the bladder, and the anterior wall of the vagina, and could not be mistaken for the amniotic membranes.

The prolapsed bladder contained two or three ounces of urine which could be pressed back above the pubis, and which disappeared after micturition. This tumor after being nearly replaced carried the anterior lip of the os uteri about an inch higher up.

This was dilated enough to admit the ends of two fingers, and remained so for five hours; there being no regular labor pains. She was then administered one drachm of fluid extract of ergot, and after an hour and a half, the uterus was contracting regularly and strongly. When the head passed the inferior strait, it pushed a fold of the bladder down between itself and the symphisis pubis, causing intense suffering to the mother. The head was small and soon escaped under the pubis, without any interference.

The mother had been subject to incontinence of urine for some months previous, and complained of unusual pain in the lumbar region during this labor which lasted seven hours.

Such cases are rare. Mme. Lachapelle mentions one, and Merriman reported one in which the bladder was punctured, but a slight degree of prolapse is said to be common in women who have borne large families.

Diagnosis. The anatomical attachment of the bladder, the thickness of its walls, the urine disappearing on micturition or catheterizing, and the ease in replacing that viscus, help the diagnosis. But it can not be mistaken for the bag of waters, particularly if the latter can be felt within the os uteri during a pain, which do not affect the bladder to any extent.

Treatment. Leishman recommends to evacuate the bladder, to replace the fundus, holding it in position until the head descends; this is obviously difficult. Cazeaux advises to hold the bladder in position with a catheter while the head is born; the catheter should be soft and flexible for fear of doing serious injury to the urethra.

800 S. HALSTED STREET.

The following lines are by Benserade, and thus rendered by Dr. Johnson:

In bed we laugh, in bed we cry;
And born in bed, in bed we die.
The near approach, a bed may show,
Of human bliss to human woe.

Society Reports.

ARTICLE VIII.

MICHIGAN STATE BOARD OF HEALTH. Reported for THE CHICAGO MEDICAL JOURNAL AND EXAMINER.

The regular quarterly meeting of this board was held at its office in the State capitol at Lansing on Tuesday, October 12th, 1880. The following members were present during the meeting: Prof. E. A. Strong, of Grand Rapids; Hon. Le Roy Parker, of Flint; Rev. D. C. Jacokes, of Pontiac; H. F. Lyster, M.D., of Detroit; J. H. Kellogg, M D., of Battle Creek; and Henry B. Baker, M.D., secretary.

IMPURE WATER.

Dr. Kellogg reported the completion of his paper on contamination of water by decaying wood, and mentioned in that connection some observations of his in regard to ice being contaminated by decaying sawdust and other impurities. He showed the fallacy of the popular belief that ice freezes pure, and said that it incloses all organic impurities that float. He described a water-cooler which was designed to avoid contamination of the water by the ice, as would happen if the ice were placed directly in the water. A cylinder containing ice was placed in the center of the cooler allowing the water to come in contact with this cold cylinder without touching the ice. He also reported progress in studies relative to the work of the new committee to which he was appointed, "the relations of preventable sickness to taxation." Dr. Baker made a report of the

WORK IN THE SECRETARY'S OFFICE

during the past quarter, which showed the distribution of a large number of annual reports and other documents to officers of local

boards of health and other persons. Heretofore documents have usually been sent to the county clerks for distribution to local officers, but having seen that it might be as difficult for some persons to get them from the county clerks' offices as from Lansing, the secretary sent a circular letter to presidents of villages, asking them whether they wished them sent to county clerks, or if they would pay the express charges if sent to them direct. Of 102 replies, seventy-three desired the packages sent direct, twenty-nine wished them sent to the county clerks, and of the latter, many now lived at or near county seats. Many of these officers expressed great interest in the information contained in the documents of the State board. From evidence collected at Lansing, it would seem that the documents issued by the State board of health are in greater demand than any State documents, with the exception of the reports of the State board of agriculture and State pomological society.

REGULATION OF MEDICAL PRACTICE.

The secretary stated that in response to communications relative to the proposed regulation of medical practice, he had prepared a paper and a form for a bill. He submitted an outline of it to the board. He had done this partly because he feared the State board of health would be made the examining board, and its usefulness for other important work impaired.

Later in the session Dr. Lyster spoke on the same subject, and the following resolutions were adopted by the board:

Resolved, That there should be required of all who are to begin the practice of medicine in this State an examination as to their qualifications.

Resolved, That such examinations by the State should be restricted to questions in demonstrable knowledge as distinguished from questions of mere opinion.

Resolved, That as a public health measure, a committee of three be appointed to prepare and report, at the next meeting of the board, a plan for furthering the objects stated in the preceding resolutions.

Drs. Lyster and Baker, and Rev. Dr. Jacokes, were appointed such committee.

THE ANNUAL REPORT OF THE SECRETARY

relative to property received and disposed of during the fiscal year ending September 30, 1880, showed the purchase and

placing of meteorological instruments in different parts of the State, the addition of 414 books and pamphlets to the library of the board, the receipt of weekly and monthly mortality statements from the principal cities in the United States and some foreign countries, the distribution of similar information respecting Lansing and the State; the detailed expenditures of the office, which are classified as follows:

Expenses of members attending meetings, $205.65; instruments and books, $147.11; paper, stationery, etc., $192.51; postage for the office, $581.90; postage by members, $16.30; printing and binding, $389.27; secretary, $2,000; miscellaneous (which includes telegrams, express, freight, etc.), $120.39; making a total expenditure for the fiscal year of $3,653.13.

EXAMINATIONS IN SANITARY SCIENCE.

The secretary reported that Dr. M. Veenboer, of Grand Rapids, and Henry B. Baker, M.D., of Lansing, the applicants for examination in sanitary science by this board, July 14, both passed the examination, and the board had since voted to grant them certificates. It was voted to publish the questions asked these candidates, in the report of the board for 1880. The secretary reported that, in accordance with instructions from the board, he had prepared a list of books valuable for reference and study by candidates for the examinations in sanitary science, and it was voted to print the list in the annual report for 1880.

OZONE.

An interesting paper by J. Mulvany, M.D., of the British navy, giving the results of ozone observations conducted in various parts of the world, was presented, accepted with thanks, and ordered published in the annual report. The paper was read before the Meteorological Society, London, England, but not yet published.

REMOVAL OF A SMALL-POX CORPSE.

The secretary presented a letter describing the method of reinterment, under the direction of the health officer of Lansing, of the body of a person who had died of small-pox.

SANITARY CONVENTIONS.

It was voted to hold two sanitary conventions for the reading of papers, discussion of sanitary topics, and the exhibition of sanitary appliances, during the coming winter. Rev. Dr. Jacokes and Dr. Baker were appointed a committee to receive invitations and make arrangements for the conventions. Persons desiring a convention at any place, may correspond with either member of the above committee.

Prof. Strong said the convention at Grand Rapids last winter had greatly stimulated public health work in that city.

The secretary presented an invitation to the international medical congress to be held in London, August, 1881.

Dr. Jacokes presented a drawing and description of plan for introducing fresh air to be warmed by a coal stove in the room.

The secretary was directed to investigate the hog cholera now prevailing in the southwestern part of this State, and find, if possible, any relation between that and any sickness in the human species.

Prof. Strong, the new member, was assigned to work on the committees on the "relations of schools to health," and on "the relations of climate to health."

Dr. Baker presented specimens of pine infected with a fungus which had completely destroyed the floors of several rooms, constructed of that wood, in a new building. The fungus seemed to grow most where the floor was covered, as with oil-cloth, or by boxes resting on the floor: and in one room the decayed floor corresponded with the portion not exposed to light, though that case may be explained by a greater amount of moisture in that part of the room, because of dampness underneath. The odor in the room was that mouldy or musty odor not infrequently met with in close rooms. It caused frontal headache, and a person engaged in repairing the floor had spells of sneezing on two occasions some months apart, while thus employed.

The secretary presented communications from E. P. Christian, M.D., of Wyandotte, relative to diphtheria, etc., and he was instructed to use them in the annual report.

A design for an official seal for the board was presented by Dr. Baker, and adopted.

Dr. Henry B. Baker was appointed a delegate to the meeting of the American Public Health Association at New Orleans, in December.

Auditing of bills and other routine work was accomplished during the day. The next regular meeting of the board will be on January 11th, 1881.

AN ANECDOTE OF LATHAM.—Dr. George Johnson, F.R.S., Physician to and Professor of Clinical Medicine at King's College Hospital, in the *Medical Times and Gazette* of October 9th, tells the following: "The late Dr. Latham related the following anecdote to Sir Thomas Watson, from whom I heard it: Dr. Latham, as many of you are aware, was a very eminent, learned and accomplished physician of St. Bartholomew's Hospital, but he had published more on the diseases of the heart and lungs than upon any other subject. A patient of his who had recently recovered from some pulmonary affection, one day said to him, 'I feel that as regards my lungs I am quite well, and now I think of going to consult Dr. Watson about my general health.' To which Dr. Latham replied, 'Yes, I see; in your estimation Dr. Watson is an architect, and me, I suppose, you look upon as a bell-hanger.' "—*Louisville Medical News.*

SYMMETRICAL NEURALGIA IN DIABETES.—Dr. J. Worms read a paper on this subject before the Académie de Médecine, in which the following points are brought forward: 1. In a great proportion of cases of diabetes mellitus there exists a bilateral symmetrical neuralgia; 2. The dental and sciatic nerves seem to be the favorite points of attack; 3. Ordinary anti-neuralgics (quinine, morphine, the bromides, chloral, etc.) do not affect these neuralgias as they do others; 4. The neuralgia is very severe, and is increased or diminished in proportion as the glycosuria rises or falls.

Domestic Correspondence.

ARTICLE IX.

BOSTON LETTER.

Messrs. Editors:—In looking over our city directory for 1880, I was surprised to find that three hundred and eighty-two members of the Massachusetts Medical Society practice medicine in the City of Boston alone. This of course includes the Charlestown, Roxbury and Dorchester districts, which are now a portion of the city. But since the Fellows of our State Society number only twelve or thirteen hundred, it will be seen that a large proportion of them are located within a comparatively small section of the whole State. It cannot be supposed that all of these are blessed with a remunerative practice. The directory contains the names of seventy Homœopaths, so called, six of whom are women. There are also fourteen Eclectics; six names under the auspices of the United States Medical Society of Massachusetts; twenty-seven members of the "New England Medical Society of Specialists;" twelve members of the New England Hospital Society, all of whom are women who, I believe, are regular in their practice; one hundred and fifteen female practioners who are not included under any organization, and who practice all sorts of 'isms and 'pathies, from hair-dressing to midwifery, and finally I find a list of doctors headed "Other Physicians" of whom there seem to be two hundred and fifty-four. "Other physicians" is an awkward squad, to be a member of which is not a specially high honor. Some of these left-handed lights of medicine indicate their curious forms of practice by names which are as puzzling as Barnum's "What is it?" but partake far more of the *genus* humbug. One fellow's practice is "analytical,"

another's "anatomical," that of a third "naturepathic," of a fourth "psycopathic." There are also "bonesetters," "magnetics," "electrics," "botanics," many of whom no doubt flourish upon that singular credulity which from time unknown has been a characteristic of the common people. Several of these men are Buchananites, their names having been published in the list of the graduates of the Buchanan mills at Philadelphia. It is a question whether, in the absence of State medical laws, these scamps should be posted in their several localities. This would merely advertise them without accomplishing anything in behalf of their victims. Among "other physicians" too, I am sorry to say, are men who are advertising abortionists, and belong to that class who make pitiable dupes of the weak and erring of both sexes. Why they are allowed to pursue their nefarious trade and advertise beside, may perhaps be explained by the frank confession of a man who quietly follows gambling as a business. He said to an acquaintance of mine that so long as he paid a certain yearly amount to the police of his district, he was not troubled, and that he considered the police tax a legitimate (?) item in his expenses. It is more than probable that abortionists protect themselves in a similar manner. At any rate it is a well-known difficulty to find proof against them. The mortifying fact is made evident by this classification, that in Boston out of nearly nine hundred individuals who are called doctors, less than four hundred are regular. If we ever push through the legislature of Massachusetts a law regulating the practice of medicine it will be doubtful as to how successful it can be made. At any rate I suppose no law can prevent the employment of quacks by the laity if the latter prefer quacks to educated men.

Just as business houses of a similar kind cluster together in the same street, so in Boston do physicians live in groups. On two of our principal streets if a person were to call out "doctor" at midnight, the result would probably exceed that accomplished by the cross-eyed schoolmaster, who said, "The boy I am looking at will please stand." Twenty-nine boys rose to their feet. For, in one of these streets, within one and a half blocks, live about sixty physicians.

At a recent meeting of the councilors of our State Society, the

proposition was made that the president should be requested to appoint a committee to consider the necessity of a law for the protection of the insane during the interval between the signing of the certificate of lunacy by the medical men and the indorsement of the same by the magistrate. It often occurs that the judge is not at hand after the certificate of lunacy has been signed by the physicians. It may be Saturday p. m. This makes the matter worse, for an unfortunate who should be taken directly to the asylum is left in the hands of the police who can do nothing more than confine the patient in the dreary cell of jail or lock-up, and who, in their ignorance of the needs of the case, are just as apt to handle a violent lunatic roughly as they are to abuse an excited inebriate. The effect upon the insane of such confinement and such treatment even for the short space of time between Saturday evening and Monday morning, might work years of harm and perhaps render an acute case incurable. If no police were at hand it might be excessively dangerous to the patient as well as to his friends to leave him in their care or in that of any persons who do no not know the proper manner of controlling a lunatic. Indeed much more might be said to prove the great need of a law for the protection of the insane during this transition period. The report of the committee appointed to consider this matter will not be made until the February meeting of the Councilors. But there can be but one result, and it seems singular that the importance of this necessity has not long ago been urged upon our law-makers by specialists. As it is, the proposition came from a branch of the State Society.

The next annual meeting of the Massachusetts Medical Society will be one of unusual interest, from the fact that it will be the centennial gathering of its Fellows. The exercises, of course, will have a special meaning, and there will be a decided departure from the ordinary programme. It is the intention of the president-elect to arrange a steamboat excursion among the islands of Boston harbor, or some other means of giving unusual entertainment to the members of the Society. The annual dinner will be followed by toasts and speeches which will have a most entertaining historical character. In more ways than one the remarkably harmonious and earnest spirit of the meetings and

proceedings of the society for one hundred years will be prominently brought to the minds of the Fellows. This body most certainly has had a remarkable history. Probably no similar society in our country holds a higher place in the respect of the laity and its influence has ever been useful and ennobling. Many of its earlier members were men who wrought untold and enduring good in placing the profession of medicine on the elevated plane which it now occupies in the United States. The influence of their writings as well as their noble manhood was felt not only in Massachusetts, but throughout the country. Their memory is very dear to the society.

BOSTON, Oct. 16, 1880. H. O.

ON THE TREATMENT OF JAUNDICE WITH LARGE DOSES OF IPECAC.—Dr. Henry Cook, of Bombay, India, writes a suggestive article in the *Practitioner*, on the above subject. Jaundice he divides as usual into the hepatogenous, and hæmatogenous. The more frequent cause of the former variety is, of course, a catarrh of the gall ducts; but, in addition there is often a form of hepatogenous jaundice, in India, at least, which comes on gradually, and is probably due to an obstruction or lesion of some kind in the minuter divisions of the hepatic duct.

Hæmatogenous jaundice, in India, is oftenest due to malarial fevers. Now, in jaundice due to any of these causes, but especially in the second form, he has found large doses of ipecac to act better than anything else. In one case he gave on the first day forty-five grains. Improvement began on the day following. On the third day he gave a dose of thirty grains, and two days later, another dose of twenty grains.

Improvement was steadily going on. In other cases two doses were sufficient to restore the normal action of the liver. Dr. Cook relates one case of hæmatogenous jaundice due to malarial fever, in which the large doses of ipecac apparently acted well.—*N. Y. Medical Record.*

Reviews and Book Notices.

ARTICLE X.—A CONTRIBUTION TO A KNOWLEDGE OF FRACTURE OF THE RIM OF THE ACETABULUM, BASED ON THE REPORTS OF TWENTY-SEVEN CASES AND EXPERIMENTS ON THE CADAVER. By N. Senn, M.D., Milwaukee.

This is a pamphlet of thirty pages, neatly reprinted from the Transactions of the State Medical Society of Wisconsin.

The author of this paper, which was read to the Wisconsin State Medical Society, commences with the following proposition: "Fracture of the rim of the acetabulum is an extremely rare accident, being less frequent than fractures involving the floor of the acetabulum."

After giving a concise and interesting description of the anatomy of the acetabulum, he details seven experiments on five different cadavers, instituted for the purpose of determining the effect of blows applied either to the knee or foot, with the limb in such direction that the force of the blow would be sustained by some part of the rim of the acetabulum. Concerning the results of these experiments, Dr. Senn remarks: "These experiments demonstrate how difficult it is to fracture the rim of the acetabulum, and they tend to corroborate the views of the majority of surgeons, who consider this injury one of the rarest accidents in surgery. They are also instructive in showing where bones are most likely to break, when a sufficient amount of violence is brought to bear upon certain parts of the skeleton. Thus, although in every experiment the limb was placed in the most favorable position, and the force applied in such a manner as to expend itself on the inner surface of the acetabulum, fracture of the rim was produced only once, and then by forcibly

rotating the femur inwards, and by applying the force to the posterior margin of the trochanter." By a commendable degree of research through surgical literature, from the days of Sir Astley Cooper to the present time, the author collates the history of twenty-six cases of this variety of fracture, to which he adds an interesting one occurring in his own practice. After discussing the causes, symptoms and diagnosis of this rare variety of fracture, giving special attention to the differential diagnosis between it and fracture of the neck of the femur without impaction, he says: "Crepitus and a tendency to reluxation are the symptoms on which we place most reliance to differentiate this fracture from simple dislocation. The akystopeurastic of Middeldorpf may be of great service to determine the existence of fracture of the rim. After reduction has been accomplished, a long, stout needle is passed through the tissue to the supposed seat of fracture. By lateral movements of its point, the defect in the margin, as well as the roughness of its surface, is ascertained. An effort should now be made to fix the detached fragment with the point of the needle, and, by rubbing it over the broken margin, a rough crepitus is elicited."

In regard to the prognosis, Dr. Senn says:

"The prognosis must have reference to the preservation of life and the restoration of the utility of the limb. All of the old authors regarded fracture of the pelvic bones as a grave lesion, almost necessarily leading to a fatal termination. I believe with Dr. E. Andrews, that all uncomplicated fractures of these bones tend to recovery, and that death is attributable in most instances to a lesion of some important pelvic or abdominal viscera. In twenty-three cases where the result is noted in this regard, thirteen recovered, and ten died. The prognosis is less favorable if the floor of the autobulum is also implicated in the fracture. Of four cases of this sort, only one recovered. In nine cases out of the thirteen that recovered, the limb remained in place after reduction, and the recovery was complete. In four cases redislocation took place, the limb assuming the same malposition as after simple, unreduced dislocation of the femur."

The whole paper is worthy of careful perusal, and does credit

to its industrious author. We quote what he says concerning the *treatment* of fractures of the acetabulum entire, as follows:

TREATMENT.

The indications to be fulfilled in the treatment of this class of injuries are: 1st. To reduce the dislocation; 2. To retain the head of the femur in the socket until union has taken place between the fragments.

The dislocation may be reduced by manipulation or by extension; in both instances flexion constitutes an important step in the operation. Bigelow says:* "These displacements, especially the displacement backwards, demand the usual attempts at reduction by flexion. Although the bone inclines to slip from the socket, it can be retained there, in cases of a sort heretofore considered difficult of treatment, by angular extension, with an angular splint attached to the ceiling, or some other point above the patient; or if any maneuver has reduced the bone, the limb should be retained, if possible, in the attitude which completed the maneuver."

In seventeen of the cases reported, the manner of reduction is specified as follows: By extension, eleven—in most of these cases extension and flexion were combined; by manipulation, two; by manipulation and extension, one; by manipulation over Sutton's fulcrum, one; by extension with pulley, two. In all but one of the cases the displacement was corrected without difficulty. In Pooley's case it was supposed that the detached fragment prevented reduction by being placed between the head of the femur and the acetabulum. In my own case, the use of the pulley was required from the length of time that had elapsed since the injury had been received. Had I been aware of the nature of the injury, no attempt would have been made to reduce the dislocation, as a restoration of the actabulum could not be hoped for after such a long lapse of time since the injury was sustained. Permanent extension was applied more for the purpose of determining a favorable locality for the formation of a new joint, than with a view of retaining the head of the bone in its socket.

* Dislocation hip joint.

As in most instances a diagnosis cannot be made before reduction has been accomplished, surgeons will resort to their favorite methods of reduction. Should the nature of the lesion be determined beforehand, traction in the direction of the broken edge of the rim, and rotation of the limb inwards, will readily restore the normal relation of the parts. As we possess no direct measures of keeping the fractured surfaces in apposition, all our efforts must be directed toward preventing reluxation, by appropriate position and fixation of the limb and pelvis.

The depth and extent of the fractured margin, as well as the location of the fracture, will determine the difficulty in retaining the head of the femur in its normal position. If sufficient depth of the upper portion of the rim is left to serve as a support to the head of the bone, all that is necessary is to dress the thigh in the abducted position, so as to press the head of the femur against the floor of the acetabulum. As the contusions of the soft parts about the hips and pelvis are severe, a plaster-of-Paris splint cannot be applied as a primary dressing. The healthy limb and pelvis should always be included in the retentive dressing.

"Bonnet's wire breeches, Dzondi-Hagedorn's apparatus, or Hamilton's splint, as advised by him in the treatment of fractures of the femur in children, will be found sufficient to maintain retention.

"After the swelling in the soft parts has subsided, nothing more perfect could be devised than a plaster-of-Paris dressing, including both limbs and the pelvis.

"When nearly the entire depth of the upper or posterior portion of the rim has been detached, muscular contraction must be counteracted by permanent extension with the weight and pulley, and immobility of the joint secured by appropriate splints. In cases of this sort, angular extension with an angular splint, as advised by Bigelow, will answer an admirable purpose. The unbroken part of the rim should be made the support for the head of the femur whenever practicable, as when the posterior part of the rim is fractured, the thigh should be dressed in the position of hyper-extension, a broad, firm, pelvic band, with a compress above the trochanter, will aid in keeping the bone in

place, in approximating the fractured surfaces, and in preventing muscular spasms.

"The treatment should be continued for a sufficient length of time to secure a firm union of the detached fragment with the broken rim, which, as in other fractures, generally requires from four to six weeks. The patient must be directed to exercise great care in the use of the limb for a considerable length of time after all dressings have been removed, so as to obviate any undue pressure against the recently repaired rim of the acetabulum.

ARTICLE XI.—THE HYPODERMIC INJECTION OF MORPHINE; ITS HISTORY, ADVANTAGES AND DANGERS. By H. H. Kane, M.D., New York. Published by Chas. L. Bermingham & Co. 1880.

In 1878 Dr. Kane commenced a careful study of his subject, and by personal inquiry, letters, and articles in journals, throughout this country, Great Britain, France and Germany, gathered a vast amount of material. From this large mass of information he has written a most valuable book of three hundred and fifty pages. Especially valuable will it be to the people of our country, if will serve as a note of warning to those who indirectly, although innocently in many cases; are the cause of this habit. From the facts set forth in chapters one and two, the author thinks he is justified in drawing the following conclusions: That localization of the injection is not necessary, and sometimes mischievous, save in certain cases, that rapidity of absorption varies in different individuals, and in the same individual at different times; that hypodermic injections blunt sensibility sufficiently to admit of the performance of minor surgical operations without the use of an anæsthetic; that abscesses are comparatively rare; that to acid solutions, unclean syringes, rusty or dirty needles and solutions which have stood for some time unprotected by salicylic acid, carbolic acid or some such drug, are the causes which produce erysipelas, pyæmia and certain other accidents which follow the hypodermic procedure.

In chapter three, in which is discussed the commencing and the usual dose—idiosyncrasy, narcotism and elimination of morphia by the kidneys, certain experiments are cited which seem to

demonstrate the fact that in dogs and rabbits, at least, interference with the renal function renders doses of morphine fatal that would otherwise cause only a stupor of some hours duration.

Among the causes which produce certain alarming symptoms, following immediately upon the injection subcutaneously of morphia, Dr. Kane speaks of *injection into a vein*, *alarming syncope* and *rapid absorption*. In the treatment of the last named accident he recommends very highly the tourniquet, or more properly a strap armed with a patent buckle. At the first intimation of danger after a hypodermic injection this should be applied above the puncture in the arm, and should be pulled tight and kept so for several hours. This being loosened gradually, but a small amount of the drug is permitted to enter the general circulation until danger is passed.

The author, in a chapter devoted to the subject, speaks at length of the treatment of opium narcosis. He tabulates all the remedies usually found of benefit in these cases as follows:

To aid to establish respiration.

To stimulate the heart.

To produce general stimulation.

To counteract soporific effects.

To produce diuresis.

He believes opium and belladonna mutually antidotal in certain particulars only, and cites the experiments and conclusions of many well known writers upon the subject. The value of coffee, or its active principle, is also discussed.

The question of using morphia with atropia is discussed in chapter 8. The conclusions of Bartholow, who has studied their physiological action very closely, are given, with our author's deductions, who says, in closing, "that there is considerable room for exact clinical inquiry as to the advantage of combining the two drugs for hypodermic use."

The dangers peculiar to, and treatment of the opium habit are discussed, and with the conclusions, end the book. In view of the rapid increase in the importation and sale of opium, the reckless prescribing of some of our profession, and the sad and terrible effects seen in scores of opium habituates, we regard the publication of this book as particularly opportune. While the writer

of this brief review believes that the author rather overestimates the frequency of the use of the hypodermic syringe, his observation and experience fully confirm Dr. Kane's conclusions in regard to the baneful use of the different preparations of the day, and from recent investigations I am fully convinced that it is from our profession that the first dose is received. As a profession we are, I am afraid, careless in prescribing this drug, and unmindful of the best interests of our patients when we permit them to continue the use of a remedy which may produce such physical and moral disaster.

ARTICLE XII.—MINOR GYNÆCOLOGICAL OPERATIONS AND APPLIANCES; FOR THE USE OF STUDENTS. By J. Halliday Croom, M.B., M.R.C.P.E., F.R.C.S.E., Lecturer on Midwifery and the Diseases of Women at the School of Medicine; Physician Royal Maternity Hospital; late Tutor to the Midwifery Class, University, Edinburgh. E. & S. Livingstone, 57 South Bridge, Edinburgh; 1879.

If this book had been written for the use of practitioners, instead of for students, little harm would have been done. But as it is intended "for the use of students," there is a probability that under-graduates will get a wrong impression of gynæcology from a perusal of its pages. To a physician of experience, this book may be of some benefit, in that it will serve to freshen the memory on some forgotten points, but it will not give any great amount of knowledge on any subject which it treats.

A medical student ought not to read such a book as this, at least not until he has read several works on gynæcology which treat the subject exhaustively; for, if he gets his first ideas of the diagnosis and treatment of the diseases of women from a work of this scope, he will be apt to have a very superficial knowledge of the subject.

The book contains ten chapters, each one upon a very important subject; and yet the entire work contains but 102 pages, 12mo.

Had the author devoted all this space to the consideration of some one of the ten chapters, as "Cervical Applications," or "The use of the Sound," he would have given to the medical

profession something of real benefit. As it is, the book is of very little value. "Hand-books" and "Manuals" of medicine and surgery are altogether too plentiful. Their tendency is towards superficial rather than thorough education.

Every physician who writes a monograph upon any topic, and embodies in his paper all that is known in regard to the subject he discusses; who, in other words, gives all the details as well as the main facts in the case, puts something into the hands of his readers that it is worth the having. It is comparatively an easy task to write a "hand-book," while to become the author of an exhaustive monograph, involves a great deal of study and research. B. W. G.

ARTICLE XIII.—ON REST AND PAIN. A Course of Lectures on the Employment of Mechanical and Physiological Rest in the Treatment of Accidents and Surgical Diseases, and the Diagnostic Value of Pain. By John Hilton, F.R.S., F.R.C.S., Professor of Anatomy and Surgery, etc., etc.

This book is already so well known to professional readers as to need little comment. It consists of a series of lectures in which Mr. Hilton shows how largely professional success in surgery is due to the recuperative powers of nature, especially when helped by the suggestions of the thoughtful surgeon, and that growth and repair bear an exact relation to physiological rest, local and general. Much consideration is given to pain, local, peripheral, sympathetic; numerous cuts show the peripheral distribution of the nerves of sensation. The work is of interest to the advanced student as well as the busy practitioner. It is the first of Wm. Wood & Co.'s phenomenally cheap library of standard medical authors.

ARTICLE XIV.—A TREATISE ON COMMON FORMS OF FUNCTIONAL NERVOUS DISEASES. By L. Patzil, M.D.

This author characterizes those diseases as functional, in which pathological anatomists can find no centric cause, and in which the changes are of a molecular nature. He considers that due attention is not paid to these affections in English text books devoted to nervous diseases, though practically he considers them

more important by far than diseases of organic lesion and much more frequently encountered.

He takes up in successive detail, chorea, epilepsy and neuralgia in its various localities, omitting consideration of hysteria as already sufficiently described in works before the public. The remaining 186 pages are given to peripheral paralysis; some of the forms given, however, are not considered strictly functional, but are added for the sake of completeness of the subject in every detail. The subject is fully discussed in etiology and treatment, and well illustrated by cuts giving the nervous peripheral distribution and the motor points of muscles.

The work is interesting and clear in style, and is the fifth of William Wood's series for 1880. D.

ARTICLE XV.—A TREATISE ON THE DISEASES OF THE EYE. By J. Soelberg Wills, F.R.C.S., Director of Medicine of the University of Edinburgh; Professor of Ophthalmology in King's College, London; Ophthalmic Surgeon to King's College Hospital; and Surgeon to the Royal London Ophthalmic Hospital. Third American edition, from the third English edition, with copious additions by Charles Stedman Bull, A.M., M.D., Surgeon and Pathologist to the New York Eye and Ear Infirmary; Lecturer on Ophthalmology in the Bellevue Hospital Medical College. Philadelphia: Henry C. Lea's Son & Co.; 1880.

It is scarcely necssary to do more than inform the readers of the JOURNAL AND EXAMINER that a new edition of this work has just appeared.

The facts that the original work met "with so very favorable a reception both by the profession at large and by the British and foreign medical press, and especially that it should have been deemed worthy of being translated into French and German," are indicative of its great merit.

The annotations of the editor, Dr. Bull, place before the student an excellent synopsis of the advances which have been made in ophthalmology during the past few years.

The treatise is illustrated with a large number of cuts, and is printed with clear type on good paper. E. L. H.

ARTICLE XVI.—NASO-PHARYNGEAL CATARRH. By Martin F. Coombs, M.D., Professor of Physiology, Opthalmalogy and Otology, in the Kentucky School of Medicine, etc., etc.

There is nothing very new in this work. As the author states in his preface, he may have satisfied the demands of a few friends who urged him to the task, and yet fallen far short of the requirements of a large class of practitioners. Though there is an interesting chapter on Infusorial Catarrh, the rest of the cases detailed, results of treatment, cuts of instruments used, etc., are such as are familiar to every practitioner.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.

Treatise on Therapeutics. By Trousseau & Pidoux. Translated by Dr. D. T. Lincoln. Vol. I. New York: Wm. Woods & Co. 1880.

The Art of Prolonging Life. By C. W. Hufeland.

What to Do First in Accidents or Poisoning. By C. W. Dulles, M.D.

Lessons in Laryngoscopy, and Rhinoscopy, and the Diagnosis and Treatment of Throat Diseases. By Prosser James, M.D.

A Treatise on the Practice of Medicine. By Roberts Bartholow, M.D. Pp. 853, cloth. New York: D. Appleton & Co.; 1880.

On the Bile, Jaundice and Bilious Diseases. By J. Wickham Legg.

A Treatise on the Diseases of the Eye. By J. Soelberg Wells, M.D. Philadelphia: A. C. Lea's Son & Co.; 1880.

PAMPHLETS.

Eighth Annual Report Michigan State Board of Health; 1880.

Twenty-third Annual Report Missouri Medical Association; 1880.

National Association for Protection of Insane, and Prevention of Insanity

Transactions Southern Illinois Medical Association for 1880; Vol. II.

Transactions California Medical Society for 1878-79-80.

Indications for Treatment in Fractures at Elbow. By L. S. Pilcher, M.D.

A Contribution to Pathological Histology of Acute Parotitis. By E. Croendt, M.D.

Transactions Kansas State Medical Society for 1880.

Rise of American Dermatology. By L. A. Duhring, M.D. New York: A. G. Sherwood & Co. 1880.

Contribution to Knowledge of Fracture of Rim of Acetabulum; twenty-seven cases. By N. Senn, M.D. 1880.

Practical Suggestions in Treatment of Diphtheria. By R. J. Nunn, M.D., Savannah, Georgia.

Presentation of the Funis, with notes of ten cases. By J. G. Meachem, Jr., M.D., of Racine, Wisconsin.

Hernia in Children; based on a study of 500 cases. By Edw. Swasey, M.D.

Transactions Georgia Medical Association for 1880.

THE DIABETOMETER. — A method for the accurate and easy estimation of the quantity of sugar contained in a given quantity of diabetic urine is very desirable. M. Yvon in the *Bulletin Générale de Thérapeutique*, for July 16, figures and describes an instrument which seems to fulfill all the indications, and if accurate, should prove a boon to the practical physician, and should certainly find a place in all large hospitals. It consists essentially of a glass tube, intended to hold the urine to be used, and which is supported horizontally on a stand. In the end of this nearest the source of light are placed, first, a reservoir for bicarbonate of potassium, then a polarizer. At the other end of the glass tube is a Nichols prism, and then a pair of lenses to focus its ray of light on the eye. The Nichols prism is made to rotate by means of a milled head, graduated so as to express the richness of sugar in grams to the liter of urine.—*Phila. Med. Times.*

CHARMS.—Stones were up to a recent period of civilization used as amulets, charms, tests and cures in both mental and bodily ailments. The blood-stone was used to stop blood running from wounds; the jacinth for driving away fever and dropsy; the moonstone was venerated from its supposed lunar attraction; coral kept off the evil eye; amber was the amulet against insanity, and also cured the ague. But the list is too long for our space. See Rymer, "Fœdera," Vol. I., page 139. —*Medical Times and Gazette.*

Editorial.

THE AMERICAN MEDICAL COLLEGE ASSOCIATION.

In commenting on the position and progress of the above named association, in the JOURNAL AND EXAMINER for October, we alluded to the withdrawal of two of the colleges in New York City, and some reasons assigned for such a course in an editorial article in the *Medical Record* of that city.

The article to which we allude in the *Medical Record*, and from which we quoted freely in our previous number, without directly asserting it, fairly conveyed the inference that the large colleges in the great Eastern cities had either withdrawn from, or refused to co-operate with the College Association for the reason that it "can do *them* no good, and that they do not have faith in the possibility of securing any great reforms in medical education through its influence." The "great reforms" alluded to by the *Record* were, "raising the lecture fees" and "the insisting that a medical college should furnish a certain amount of *clinical* instruction;" and the impression left upon the mind of the reader was, that the colleges in the great Eastern cities had withdrawn or kept aloof from the College Association because a majority of its members being the smaller colleges, "scattered throughout the West and South," it could not possibly adopt these measures of reform without a "fatal loss of membership." In our previous article we showed the fallacy of this pretext, so far as related to the raising of fees, by stating the *fact* that all the important medical colleges in the West (except two State institutions) whose fees were inordinately low, had actually raised them to $75. In regard to the other "great reform," which is a very desirable one, namely, "the insisting that a medical college

should furnish a certain amount of *clinical* instruction," we are prepared to show, first, that the colleges in the great Eastern cities have neither insisted that their own students should attend any amount of clinical instruction as a condition for graduation, nor ever asked that the College Association should establish such a rule, and second, that the leading colleges in the West and Southwest are now, and have been, for twenty-five years past, holding a position in regard to clinical instruction in advance of that held by the colleges in the great Eastern cities.

While the annual announcements of the medical colleges in Philadelphia, New York and Boston set forth very prominently the facilities for clinical instruction in the hospitals and dispensaries of those cities, we have failed to find a single one that makes actual *attendance* on such instruction one of the conditions for graduation; and some of them take pains to state positively that such attendance is *not* obligatory. On the other hand, so early as the autumn of 1850, the Rush Medical College of Chicago made attendance on hospital clinical instruction during at least one full college term, one of the requirements for graduation. The Chicago Medical College, now the Medical Department of the Northwestern University, organized in 1859, adopted the same requirement and has enforced it during the whole period of its history. At present, the same requirement is enforced by the Detroit Medical College, the Medical Department of the University of Louisville, and several other schools in the Western cities. Not only have many of the leading medical colleges in the West made attendance on hospital clinical instruction a condition for graduation, but they have more perfectly systematized that important department with a view to having every senior student personally trained in the examination of patients, the handling of instruments for aiding in the diagnosis of diseases, as well as in noting the effects of treatment.

For instance, the Chicago Medical College regularly divides her whole clinical class, composed of the second and third year students, into sub-classes of six students each; and six of these small classes are regularly assigned to as many special departments, among which are the departments of gynæcology, diseases of the eye and ear, diseases of the chest and air passages, dis-

eases of the nervous system, diseases of children, dermatology, etc., in which they are instructed one hour each day for one week, while the remainder of the class are attending the daily general clinics. The next week they fall back into the general clinics and another six of the small classes take their places. This full and carefully matured system of daily clinical instruction has been an essential part of the curriculum of instruction in this college for more than a decade of years. It will be seen by the announcements of the Rush Medical College that similar advantages are afforded for personal clinical instruction in some of the departments, though perhaps less in detail than that just mentioned. We have no hesitation in claiming that there are no hospitals in the great cities of the Eastern part of our country where, during the last quarter of a century, more faithful or systematic clinical instruction has been given at the bedside of the sick, than in those of New Orleans, Louisville, St. Louis, Cincinnati, Chicago and Detroit. And there are no medical colleges in the former cities whose faculties have done as much to make attendance on such clinical instruction a *necessary* part of the student's education, as has been done by the faculties of many of the colleges in the last named cities.

While on the subject of this comparison of the colleges of the East and West, we will go further and remind our Eastern friends of a few historical facts which they will do well to remember. If they will take the trouble to refer to the proper records, they will find that when, in 1866, the American Medical Association had become weary of listening to report after report from the standing committees on medical education, and of adopting resolution after resolution recommending the colleges to adopt a higher standard of requirements for the graduation of students and a better system of college instruction, it was a representative from a *Western* medical school that moved the call for a convention of delegates from medical colleges exclusively to take action on these topics. And when in obedience to the call the college delegates assembled in convention in Cincinnati, May, 1867, there were found to be present representatives from medical colleges in every large city in the West and Southwest, not excepting San Francisco on the Pacific Coast, while not a representa-

tive appeared from any college in New York, Brooklyn or Boston. Of the eighteen medical colleges represented in that convention, only four were from colleges in the East, namely one from the University of Pennsylvania and one from the Jefferson College in Philadelphia; one from the Medical College in Albany, N. Y.; and one from the Berkshire College in Pittsfield, Mass.; all the rest being from colleges in the West and South.

In looking further, it will be found that the propositions embodying a full scheme of medical college education, including a fair standard of preliminary education and a full *three years' graded course* of study, of which "clinical medicine and clinical surgery in a hospital," constituted an essential part, were prepared and presented for the consideration of the convention by a delegate from a Western college; that after three days of careful consideration and free discussion, the several propositions were adopted without any essential alterations, without a vote in the negative. Let it be remembered that this was done by a convention of delegates representing *fourteen* medical colleges "scattered throughout the West and South," *two* in *one* of the "great cities of the East," and two in the smaller cities of the East; that it was in 1867; and that the propositions then deliberately adopted embraced fully all the "great reforms" alluded to by the editor of the *Medical Record*, except that of lecture fees. That convention appointed a committee of five, to furnish copies of the propositions adopted to the faculties of all the regular medical colleges in the United States, and ask for their practical adoption. The same committee was authorized to call another convention if, in its correspondence with the medical colleges, such a step should be thought advisable. The committee performed its duties faithfully, and reported the full results of its correspondence with the colleges to a second convention which assembled in the City of Washington in May, 1870.

In this second convention twenty-one medical colleges were represented by accredited delegates. Of these, two were located in Philadelphia and one in Buffalo; the remaining eighteen were "scattered throughout the West and South," but not one in the great cities of New York, Brooklyn and Boston.

And when propositions for re-affirming and adopting the plan

agreed upon at the first convention were under consideration and a vote was about to be taken, the question was asked by one of the delegates from a college in St. Louis, whether the action to be taken was to be considered *binding* on the colleges represented or only *recommendatory*, the representatives of the two large schools in Philadelphia, Professors Gross and Stillè, promptly answered that they had *no authority* to bind their respective colleges, while the delegates from many of the leading colleges in the West and South announced that they had come to the convention fully authorized to take such action as would be obligatory upon the colleges they represented. But the entire absence of representatives from the colleges in New York and Boston, with the position taken by those from the colleges in Philadelphia, effectually prevented anything more than a renewal of the *recommendations* made by the convention of 1867. It is thus made apparent by direct historical data, not only, that individual colleges in the West have been much in advance of those in the "great cities of the East" in practically adopting long lecture terms," a full graded three-years course of medical studies, and actual attendance on hospital clinical instruction as a requirement for graduation; but that for fifteen years, at least, a large majority of the medical colleges in the West, from the lakes to the Gulf of Mexico, have been ready to adopt all these improvements with a fair standard of preliminary education added; and have only been waiting for the co-operation of the "larger colleges in the great Eastern cities." Not only is this true as applied to the medical colleges of the West, but it is equally so in regard to the sentiments of the profession at large in the same section, as our friend of the *Medical Record* may find if he chooses to look at the resolutions concerning this subject, adopted by the State Medical Societies of Michigan, Wisconsin, Minnesota, Illinois and Missouri, during the last two or three years. Yet with all the facts to which we have alluded concerning the position of the medical schools and of the profession in the West, on the subject of medical education on record, accessible to any writer who will take the trouble to make the necessary references, Eastern journalists and others continue to represent the scheme of medical college instruction which was established

in the Chicago Medical College in 1859; fully discussed and approved by two medical college conventions, one in 1867 and the other in 1870, between which periods it was formally presented for the consideration of the faculties of all the medical colleges in the United States, as the "Harvard Plan," and of Harvard College as *the pioneer* school in adopting it. They excuse the *larger schools* of the *great Eastern cities* for withdrawing or standing aloof from the American Medical College Association because a majority of its members are "smaller colleges scattered throughout the West and South," and *therefore unable* to adopt any great reforms without a "fatal loss of membership." We confess that we are a little out of patience with this persistent misrepresentation of the facts of past history and of present relations—this Pecksniffian assumption that there is nothing of value or importance in the medical institutions of this country outside of that circumscribed strip of territory lying between the eastern part of the Alleghanies and Plymouth Rock.

And having entered our protest in as respectful a manner as possible, we shall in another number of the JOURNAL AND EXAMINER state what we think needs to be done for the best interests of the Association, the profession, and the colleges in all sections of our country.

EFFECTS OF INOCULATING THE LOWER ANIMALS WITH DIPHTHERITIC EXUDATION.

Supplement No. 7 of the *National Board of Health Bulletin* contains a detailed report concerning a series of experiments and observations on the above subject by Drs. H. C. Wood and Henry F. Formad, of Philadelphia.

These gentlemen inoculated eighteen rabbits, three dogs, ten cats, and one goat, with the membranous exudation from persons sick with diphtheria, by inserting it beneath the skin or into scarifications in the membrane lining the mouth, and in some by introducing it in both places. Of the thirty-two animals thus inoculated, only six died. In these six, the time between the inoculation and death varied from two to fifteen days.

In only one of the fatal cases was there found any false membrane on the mucous membrane of the fauces or larynx, and in that one it was very slight. Neither did these gentlemen find any micrococci, either in the internal organs of those which died or in the blood of the living.

The post-mortem examinations did show that "in every case the internal organs were tubercular, and in many cases intensely so." They also state explicitly that "in no case did inoculation in the mouth produce either local or general symptoms."

To determine whether the rapid development of tuberculosis in the animals inoculated was caused by any *specific* influence of the diphtheritic matter used, or only the result of a local inflammation from any cause, nine rabbits were treated by inserting simply small bits of wood or glass, or bit of wire, and in one a bunch of clean hair, beneath the skin. Five of the nine sickened and died at periods varying from fifteen to twenty-eight days. In each case the post mortem examinations showed extensive tubercular infiltrations in nearly all the internal organs, differing in no essential particular from the appearances in those dying after inoculation with the diphtheritic matter. In four rabbits the diphtheritic exudative matter was applied to the mucous membrane lining the trachea. In one of the four, pseudo-membranous trachitis was produced, followed by death; the other three remained well. The experimenters next tried the effects of applying simple irritants to the tracheal membrane. They applied a few drops of aqua ammonia in five rabbits, one cat and one dog. One of the rabbits died at once from the operation; too much ammonia having been used. Of the other six, five died in from one to three days, all presenting well formed pseudo-membranous formations in the larynx and trachea, identical in appearance with the ordinary croupous membrane, and containing plenty of bacteria. A fifth series of experiments consisted in the inoculation of the trachea in ten rabbits, with pus and other morbid animal substances. Of these, six died in periods ranging from one to nine days; only two of them presenting well marked false membrane in the trachea. It will be seen that the whole number of animals experimented on was sixty-two.

Drs. Wood and Formad close their interesting report with the following comments:

"In looking over the last table, it will be seen that in two of the ten experiments pseudo-membranous trachitis was caused by the introduction of organic matter into the trachea. In both of the cases in which false membrane was produced, the injected material was pus; and it will be noticed that only four such experiments were made, so that the proportion of successful result is very large; much larger, indeed, than with true diphtheritic exudation in our experiments.

"Trendelenburg found that not only ammonia, but also various other chemical irritants are capable of causing the formation of false membrane in the trachea; many years since it was proven that tincture of cantharides will do the same thing. It would seem, therefore, that in the trachea the formation of a pseudo-membrane is not the result of any peculiar or specific process, but simply of an intense inflammation, which may be produced by any irritant of sufficient power. This fact, certainly, is very suggestive in regard to the pathology of diphtheria, and whilst we are not prepared to commit ourselves to any theory, it does seem proper to call attention to certain facts as indicating a very simple explanation of the peculiarities of the disease.

"It is certain that as in the lower animals, so also in man, will chemical irritants produce a pseudo-membranous trachitis; we are also well assured that there is no anatomical difference which can be detected with the microscope, between the lesions of true croup and diphtheritic angina. A difference has been believed by some pathologists to exist between the two diseases, in that in croup the membrane separates easily; in diphtheria with great difficulty from mucous membrane. This seems to arise from a misunderstanding. The mucous membrane of the fauces and mouth has a squamous not easily detached epithelium, and consequently membrane connected with or springing from such surface is firmly adherent. The epithelium of the trachea is columnar, ciliated, and detaches with the utmost facility even in normal condition of the organ; hence membrane attached to it separates readily. The membrane of diphtheritic trachitis is always readily detached in the line of the epithelium. Our

preparations also show that the exudation of the croupous inflammation excited artificially in the trachea is not merely superficial, but also extends below the basement membrane. Some of the best clinical authorities of the day teach that there is no essential clinical difference between true croup and diphtheria, cases commencing apparently as local sthenic inflammation and ending as the typical adynamic systemic poisoning. Every practitioner must have seen cases of angina in which he was in doubt whether to call the affection diphtheria or not; the very frequent diagnosis of "diphtheritic sore throat" is a strong evidence of this. There have been cases in which diphtheritic matters absorbed by a wound have produced symptoms very closely resembling those of ordinary septic blood poisoning from post mortem wounds, etc.; there have been cases of the formation of false membrane about wounds, etc., without any known exposure to a specific diphtheritic poisoning, indicating that the systemic tendency to this peculiar form of exudation is capable of being engendered by other than the specific poison of diphtheria; finally, diphtheria seems sometimes to be produced by exposure to cold.

A general view of these facts seems to indicate that the contagious material of diphtheria is really of the nature of a septic poison which is also locally very irritant to the mucous membrane; so that when brought in contact with the mucous membrane of the mouth and nose it produces an intense inflammation without absorption by a local action. Whilst absorption is not necessary for the production of the angina, it is very possible that the poison may act locally after absorption by being carried in the blood to the mucous membrane. Further, under this theory it is possible that the poison of diphtheria may cause an angina which shall remain a purely local disorder, no absorption occurring, or a simply local trachitis produced by exposure to cold or some other non-specific cause may produce the septic material when absorption shall cause blood poisoning, the case ending as one of adynamic diphtheria.

Some such an explanation as those here offered seems to reconcile antagonistic opinions concerning the value of local treatment in diphtheria; because it is plain that the value of such treat-

ment must largely depend upon whether the angina has or has not been preceded by absorption.

There is one more important clinical feature of the disorder, which under other views of the disease seems inexplicable, but which with the present theory is easily explained. Diphtheria differs from the exanthemata by the fact that one attack in no way protects against a second. It will be seen that the theories here put forward remove the affection entirely from any relation with exanthema; placing it rather with septic diseases; which as is well known, may recur indefinitely.

We want, however, distinctly to state that we do not consider these ideas to be more than suggestions, and it is useless to speculate, except as a guide to further experimental research; it does seem to us that there are now two pathways clearly open which if carefully followed must lead to important positive or negative results. The first of these consists in the making of careful culture experiments to determine whether there is or is not any difference between the bacteria of ammonia and diphtheritic false membranes; the second, the study of the induction of epidemics of pseudo-membranous angina and trachitis in the lower animals and the relation to these of the rapid cases of death produced in the lower animals by diphtheritic inoculation.

There is still another somewhat different view which seems also not repugnant to the known facts of the case. There may be bacteria, which although they offer no points of difference detectable by our best microscopes, are really very diverse. Two spermatozoa or two ova in the higher animals may seem to be exactly alike and yet be potentially widely separated. Although therefore the bacteria of an ammonia false membrane seem identical with those of diphtheritic false membrane, they are not of necessity really so. Careful studies of the blood of patients who die of diphtheria should be made, but at present it seems altogether improbable that bacteria have any direct function in diphtheria; i. e, that they enter the system as bacteria and develop as such in the system and cause the symptoms. It is, however, possible that they may act upon the exudations of the trachea as the yeast plant acts upon sugar, and cause the production of a septic poison which differs from that of ordinary putrefaction,

and bears such relations to the system as to, when absorbed, cause the systemic symptoms of diptheria. Now, these bacteria may be always in the air, but not in sufficient quantities to cause trachitis, but enough when lodged in the membrane to set up the peculiar fermentation; whilst during an epidemic they may be sufficiently numerous to incite an inflammation in a previously healthy throat.

DIFFICULTIES OF DIAGNOSIS.

The prevalence of a mild grade of fever in the Plaquemine Parish, La., on the Lower Mississippi, during the months of August and September, has furnished another instance of the difficulty of ascertaining reliably the *nature* of certain outbreaks of disease, especially when of limited extent and duration. The fever to which we have alluded in Louisiana, commencing at a time when yellow fever was anxiously watched for, was quickly brought to the notice of the member of the National Board of Health resident in New Orleans. He sent Dr. G. M. Sternberg, of the U. S. A., to investigate the same, and he reported that it was a mild type of genuine yellow fever.

Founded upon this decision, the National Board of Health promptly ordered an appropriation of from $5,000 to $10,000 to be placed at the disposal of the Louisiana State Board of Health, for use in executing necessary measures for preventing the spread of disease. But as the Louisiana State Board regarded the fever in question as one of *malarial* origin, the generous tender of aid from the National Board was declined. At this point the member of the latter board in New Orleans called to his assistance the member of the same board at Memphis, and, after consultation, it was agreed that a committee consisting of Dr. J. Dickson Bruns, of New Orleans, Dr. J. P. Davidson, of the Louisiana State Board of Health, and Surgeon Sternberg, of U. S. A., should visit the infected district and personally make such examination as would enable them to decide more satisfactorily the nature of the prevailing disease.

The results of the investigations of this committee were two reports—one by Surgeon Sternberg, adhering to his previously

expressed opinion that the disease was a "mild type of yellow fever;" the other by Drs. Bruns and Davidson, though written by the former, declares as follows: "Of the nature of the fever, without multiplying details, I will simply say that neither in its special features nor in their entirety could I realize a single prominent characteristic of yellow fever." When we remember that all the members of the committee were not only members of the profession in high standing, but thoroughly familiar with yellow fever for years, their arrival at opposite conclusions is somewhat remarkable. It should be stated, however, that, notwithstanding the report of a majority of the committee was to the effect that the disease in Plaquemine Parish and neighboring districts was not yellow fever, the members of the National Board of Health resident in New Orleans and Memphis side with the report of the minority of the committee, and in the *National Board of Health Bulletin* for October 9, declare as follows:

"1. That yellow fever (about one hundred cases) existed between August 1 and September 10 in Plaquemine Parish, La.

"2. That the outbreak had its origin in the immediate vicinity of the Mississippi River Quarantine Station, the first case (August 1, 1880) occurring directly opposite the point where the infected bark 'Excelsior' was detained from July 11 to August 16."

Consequently, all interested in the study of yellow fever, whether sanitarians or practitioners, who look for facts and statistics to the published records of official sanitary organizations, will be likely to take the authority of the National Board as conclusive, and include this fever on the Lower Mississippi in 1880 as an acknowledged prevalence of yellow fever. This affords a fair sample of many of the alleged facts concerning the prevalence of particular diseases to be found in our medical literature, and it gives rise to several important reflections: First, it forces us to suspect that many of the so-called facts concerning the nature, prevalence and prevention of diseases of which we read, rest on imperfectly observed or doubtfully established data. Second, if we assume that Drs. Sternberg, Bemis and Mitchell are correct (and we are not disposed at present to criticise their

opinion), we must acknowledge that a prevalence of mild yellow fever has existed over a considerable district of country, beginning in spite of quarantine against importation, and ceasing to spread without internal quarantine or isolation and with but little sanitary interference. But supposing the State Board of Louisiana had accepted the appropriation of the National Board and spent the five or ten thousand dollars in a vigorous isolation and disinfection of every case in the Plaquemine Parish, what would have been the inference? The disease would doubtless have maintained its mild character and disappeared in due time, and would not such a result have been claimed as another triumph of enlightened sanitation over the prevalence of disease? Certainly it would. And yet the claim would have been entirely deceptive or false, as many of those already on record doubtless are. We are not now arguing against the importance of sanitary or preventive medicine, but only trying to realize how easy it is to be deceived, or, more properly, how difficult it is to keep the line of distinction between true *effects* and mere coincidences.

There is, however, another view to be taken of this subject, of no little interest. Those who look over the number of the *Bulletin* to which we have alluded, will see that Drs. Sternberg and Bemis both claim that the disease on the Lower Mississippi, which they call yellow fever, is of a very mild type, causing a very low ratio of mortality. Speaking of his two visits, Dr. Sternberg says: "I have not seen during either visit any case which, *alone*, would enable me to make a positive diagnosis of yellow fever; but from a consideration of all the cases seen by me during my two visits, and of the facts relating to the origin and progress of the epidemic, cannot doubt that this fever is *the mild type* of yellow fever which has been described under various synonyms given in my previous report, and which Blair more properly calls 'yellow fever *simplex*,' to distinguish it from the more malignant type called by him '*gravier*.'" In another place, after alluding to the opinions of Bérenger-Feraud and others, he says: "Such is the resemblance of this form of fever with the first degree of yellow fever that when it is observed sporadically without an epidemic of yellow fever, the doctors of the country say, 'If we were in the time of yellow fever, we

would say that it is yellow fever.'" And he adds: "For me, this fever is identical with yellow fever, and only differs in degree from the more severe forms which, because of the fatality which attends them, are known and dreaded by all." If we concede the correctness of Dr. Sternberg's position, that the mild fever of Plaquemine Parish, and the sporadic cases resembling yellow fever that occur in various places within the yellow fever zone almost every year, are really idendical with yellow fever proper, differing only in degree of severity, precisely the same process of reasoning on a parallel series of facts would compel us to regard the ordinary endemic cholera morbus as identical with epidemic cholera; and sporadic erysipelas as differing from the epidemic form only in degree of severity, etc., etc.

But, taking this view, what becomes of the doctrine of the importation of germs, and the spread of these diseases by contagion?

Shall we say that the same identical diseases may be indiginous and non-contagious when in a mild form, and dependent on an imported cause and freely spread by contagion when severe? These are questions which we have long regarded as worthy of the most careful consideration, but which we have not now time to answer.

ORGANIC MATTER IN THE AIR.

In the *National Board of Health Bulletin* for September 11th, 1880, is an interesting report on this subject by Ira Remsen.

The author of the report describes fully his methods of investigation, but points out the many difficulties to be encountered, and acknowledges the inconclusive nature of his results. The whole report is valuable as a step in the right direction, but is too lengthy for copying in full. The following, however, are his conclusions and suggestions:

"In looking back over the field traversed I cannot avoid a feeling of dissatisfaction. A great deal of time has been spent in this investigation. Constant attention to minute details has been necessary, and at times disappointment has followed disappointment. Here and there, however, light has been thrown upon the

subject; and whatever its future development may be, I think the facts established here will always stand. Let us, then, pass quickly in review the main results.

"1. The nitrogenous matter of the air may be thoroughly collected by means of the pumice-stone absorber described in this report.

"2. The total amounts of ammonia found in experiments performed at the same time with the same specimens of air, agree fairly well with one another; so much so as to warrant the use of the method for the examination of the air.

"3. When free and albuminoid ammonia are determined, the results obtained do not always agree very closely, but still the agreement is sufficient to enable the experimenter to detect such variations as are likely to occur between pure and impure air.

"4. Air contaminated by being drawn through water containing decaying meat, does not yield more than the usual quantity of albuminoid ammonia.

"5. Air contaminated by being drawn over comparatively dry decaying organic matter, yields more than the usual quantity of albuminoid ammonia.

"6. Air contaminated by respiration, yields more than the usual quantity of albuminoid ammonia.

"7. It is necessary in judging of the purity of air to take all the facts known in regard to it into consideration. The simple determination of any one constituent can never be a sufficient basis for the formation of a competent judgment.

"8. It would be useless to have examinations of air made by any but the most careful workers. It would be time thrown away to have such analyses made by the average practical chemist.

"Finally, as to suggestions for the future. A number of questions have been left unanswered in this investigation. A very important one is this: Is the air which has been deprived of its nitrogenous matter also deprived of injurious constituents? If this is ever to be answered, it is evident that it cannot be by chemical methods. The effect of the air on fermentable liquids must be studied, and also on animals. Can an animal continue to breathe normally in such air?

"A second question which ought to be answered is this: Does the amount of organic matter in the air vary with different conditions of the air, as for instance, with the hygrometric state? This can only be answered by a long-continued, systematic series of examinations of the air, such as are at present being made at Glasgow, Montsouris, and at some places in Germany. It may be said, however, that, up to the present, no connection has been observed between the amount of organic matter and other conditions of the air.

"Again, it would be interesting to determine how much nitrogenous organic matter from ordinary contaminating sources can be held in suspension in the air.

"Many other questions suggest themselves, but those given above indicate that an almost unlimited field opens before us, and show clearly that the only way in which results of great value can be reached is by united effort. A single individual can do little more than point out the way in which results may be reached, and clear the road for advances. It will only be when health departments in a great many places are impressed with the importance of such subtle examinations as those of the air, and provide the means for making them through long periods, that our knowledge will be materially increased on the subject treated in this report. When records, made year after year by competent men using the best methods, are in our possession, then probably conclusions of great importance for sanitary science will be drawn."

In consequence of a singular error in proof-reading, the name of the author of the interesting lecture on the treatment of urethral stricture by the "perineal section," published in our last issue, was announced as L. Ranney. We take this opportunity of stating that the contributor who kindly favored us with the production referred to was Professor Ambrose L. Ranney, Adjunct Professor of Anatomy in the University of the City of New York, Medical Department.

Original Translations.

MENSTRUATION AFTER A REMOVAL OF THE UTERUS.—Dr. Tillaux reported to the Academie de Médecine, Paris, August 31st, the case of a woman in whom he had removed the body of the uterus sixteen months previously. Menstruation returned more frequent and in smaller quantity from the remaining portion. Another woman continued to menstruate after a removal of the ovaries.

INFLUENCE OF OXYGENATED WATER ON FERMENTS.—Dr. Regnard has mixed a few drops of oxygenated water with yeast, urine, milk, wine, white of egg, etc., and after a month none of these had undergone fermentation.—*Société de Biologie.*

PARIS.—Dr. Bouchardat writes to the Academie de Médecine that the most frequent cause of infantile mortality in that city is diarrhœa; that the latter is mostly caused or induced by the use of milk which is taken twenty-four hours after milking, when the lactic fermentation has already begun. The best treatment is to resume nursing from the breast.—Dr. M. J. Guérin reports to the same body, Sept. 7, favorable results in the treatment of that disease from the addition of pulverized charcoal to the milk.

RESULTS OF THE TREATMENT OF AORTIC ANEURISMS BY GALVANO-PUNCTURE.—Dr. L. H. Petit reports 114 cases treated. The interrupted current was employed in 111 cases. Of the 114, sixty improved, thirty-eight died without improvement, three were treated without result, and four doubtful; thirty-eight died within a year, after a marked improvement; ten after one to two years. The rest survived from two to five years. The

rupture of the aneurismal sac was constated forty times in the fatal cases which remained under observation.

DR. GENTILHOMME, of Rheims, refers acne to the presence of a parasite *demodex* in the sebaceous glands. The destruction of this parasite requires a long and tedious treatment, and the disease is likely to return if a few parasites have escaped.

PROF. TOUSSAINT relates more anthrax vaccinations. Some of the animals died, perhaps because some germs had remained in the serum used after filtering. Animals once vaccinated are not susceptible to a second vaccination.—*Revue Medicale*, Sept. 4th.

RECIPROCAL INFLUENCE OF PREGNANCY AND HEART DISEASE. By Dr. Ch. Parak. In a large number of recorded cases, patients remained stationary in 25 per cent., grew worse in 65.74 per cent., died in 38 per cent., and improved in 26 per cent. Labors at term, 58.87 per cent.; before term, 41 per cent., including abortions.

LARYNGOLOGICAL CONGRESS AT MILAN, SEPT. 2D.—Dr. Maurice Schmidt has observed nineteen cases of phthisical laryngitis cured in 315 cases which he treated in the space of three years. Antiseptics preferred. Inhalations of Peruvian balsam, phenic acid, or glycerite of creosote. Local applications of a solution of nitrate of silver, 24 to 48 grs. to the ounce.—Dr. Caselli presents the case of a girl, nineteen years old, in whom he has removed the larynx, the pharyngo-buccal wall, the uvula and part of soft palate, the tonsils and part of base of the tongue. The introduction into the trachea of two canulas enables the patient to eat, and the use of a canula with a sort of musical arrangement enables her to speak.

PARIS, Aug. 17th.—A case of hydrophobia was treated by electricity—ten cells (Trouvé-Callaud) being used. The application of the electrodes to the larynx reduced the spasms every time. Patient died from a dispute with a medical attendant, which brought on coma.

NECROLOGY.—Dr. Delpech, a member of the Academie de Médecine, died Sept. 5th, aged 62, from an attack of angina pectoris.—Dr. Lepeyrère, a noted writer in the medical press, has lately died at Boulogne-sur-Seine.

A MEDICAL COLLEGE has just been established at Algiers, after an edict of the president of France. No European is admitted. Course consists of four consecutive terms (of three months each), and the graduates will be called *sous-officier de sante de l'Algerie.*

KLEBS ON THE SPECIFIC AGENT OF TYPHOID FEVER.—Prof. Klebs, of Prague, believes that he has discovered the micro-organism which constitutes the specific agent of typhoid fever, and develops his views in a paper entitled "Der Ileotyphus eine Schistomy cose," published in the *Archiv. für Experimentale Pathologie*, t. 12, p. 231, 1880 (*British Medical Journal*). Prof. Klebs has for a long time, assisted by his pupils, been making researches in this direction. He writes that he has been able to find, at the necropsy of twenty-four persons carried off by dothinenteritis, microbes in various organs—in the intestinal mucous membrane, in the thickness of the cartilages of the larynx, in the pia mater, in the foci of lobular pneumonia, in the mesenteric ganglia, in the parenchymata of the liver, and generally diffused in the organs which showed the most decided lesions. These micro-organisms showed themselves in the forms of rods about eighty micrometers in length and 0.5 to 0.6 micrometers in thickness. They have been constantly observed in the bodies of dothinenteric patients since the attention of Prof. Klebs was drawn to the subject, and they are always absent from the organs, and specially the intestines, of subjects who have died from any other disease than typhoid.—*Louisville Med. News.*

THE serious illness of Prof. T. D. Fitch, of this city, still is the occasion of anxiety to his many friends here. We hope in our next issue to announce the fact of his safety.

Selections.

CASE OF STRANGULATED VERMIFORM APPENDIX; OPERATION; DEATH; REMARKS. (Under the care of Mr. PICK.)

The case in which the vermiform appendix of the cæcum had descended into the sac of a hernia and had there become so tightly strangulated as to produce very severe symptoms, necessitating operation and terminating in speedy death, appears to be worthy of being placed on record on account of its rarity.

Robert E., aged fifty-four, painter, was admitted into the hospital on February 21st. He stated that he had ruptured himself twelve years previously, but that his hernia, which he had always been able to return, had never given him any trouble nor prevented him following his occupation. He had therefore paid no attention to it, and had never worn a truss. Five days before admission his rupture came down, and he was unable to push it back again. Soon he began to suffer great pain in the part, and it became much swollen. His bowels had not acted since the descent, and he had been constantly sick, the vomit latterly having been of a very offensive nature. The day before admission a medical man made a prolonged attempt by taxis to reduce the hernia, but without success. The proceeding caused him great pain.

When admitted he was in a state of collapse. The surface of the body was cold and covered with a clammy sweat; the pulse was scarcely to be felt, and very quick; the tongue was coated with a white fur; the abdomen was tympanitic, but not rigid. In the right inguinal region and lower part of the abdomen, extending nearly to the level with the umbilicus, the tissues were swollen and œdematous, and the skin was red. Just below and internal

to the abdominal ring was a tense, hard swelling, which occupied the upper part of the scrotum and extended up into the inguinal canal, along which considerable fullness and hardness could be felt. There was no impulse on coughing, and the patient did not complain of much pain during the examination.

He was at once placed under the influence of ether, and a vertical incision was made over the external abdominal ring. Upon cutting into the subcutaneous tissue a large quantity of serum escaped. The various coverings of the sac were then divided. They were much infiltrated, and adhered to each other. The sac, having been exposed, was opened, and a large quantity of thick fetid pus escaped. The sac wall was very much thickened, and was coated on its internal surface by flakes of lymph. After the fluid contents of the sac had been carefully sponged away, the sac was found to contain only the vermiform appendix. The portion of intestine was much thickened and congested, and, like the anterior of the sac, was covered with flaky lymph. The stricture, which was so tight that it was with difficulty divided, was situated at the neck of the sac. After the division of the stricture the finger could be passed freely up into the abdominal cavity. The vermiform appendix, which was not perforated, was now carefully cleansed, and returned just within the opening in the abdomen. As the sac was in a state of acute suppuration, it was dissected out from the tissues with which it was in contact and removed; the external wound was then closed. The operation was performed with strict antiseptic precautions. During the operation the patient was very faint and collapsed, and required brandy. He never rallied after his removal to bed, and died in about five hours.

Necropsy.—There was a wound some three inches long over the right inguinal canal, closed by silver suture. The wound being opened gave access to a small sac communicating directly with the peritoneal cavity by its neck, which was about one-third of an inch in diameter. At the upper part of the sac was the extremity of the appendix cæci, adhering by soft adhesions, which were easily broken down, to the lining membrane of the neck of the sac, which was continuous with the peritoneum. The rest of the appendix and the cæcum were close to the opening of the sac

in the abdominal cavity. At the point of junction of the appendix to the cæcum was a ring of discoloration, and here the tube was compressed and slightly ulcerated. The appendix was thickened and covered by flakes of lymph, but otherwise appeared tolerably healthy. The peritoneum in the neighborhood of the sac was dark colored, showing a little soft lymph on its surface. There was no general peritonitis. The lungs were very emphysematous and congested. There was puriform fluid in the bronchi. The heart weighed ten ounces; it was uncontracted. There was a little partially decolorized clot in the right ventricle. The muscular tissue was very soft and friable, and had undergone considerable fatty change. The valves were natural. The liver weighed 3½ lb.; it was soft and pale, and infiltrated with fat. The other organs were natural.

Mr. Pick remarked in connection with the above case that it was one of great rarity. He had never certainly seen a similar case. Nor did he even remember to have read of one where the vermiform appendix was strangulated. Of course cases where a portion of the bowel, probably cæcum, and the vermiform appendix together were found in a hernial sac were not uncommon. He had looked through the tables of operations for strangulated hernia in St. George's Hospital for the last twenty-eight years, and had not been able to find an instance of the same thing mentioned in these records, nor had he found the subject alluded to in any of the authors he had consulted. It seemed difficult to account for the way in which the vermiform process had become strangulated. How a tube of such small dimensions as the appendix should have been so tightly constricted in a canal which on previous occasions had allowed the passage of a much larger body, as a portion of the gut, or, at all events, omentum. For it seemed perfectly clear to his mind that the hernial sac must on a former occasion have contained either gut or omentum, for he could scarcely conceive how a soft, free, movable tube like the appendix could produce a hernia by forcing before it the peritoneum along the inguinal canal, though it was easy to understand how it might find its way into a hernial sac when it was once formed. He could come to no other conclusion than this, that the sac had been originally formed by the protrusion of a portion of intestine

or omentum in the usual way, and into the sac thus formed the appendix has descended. It seemed strange under these circumstances that it should have become stangulated, and at the operation he had expected, when he saw what was in the sac, to find a small knuckle of intestine high up by the side of the appendix, but that this was not the case was abundantly proved by the post-mortem examination, which showed that the whole of the intestine was natural, except this little process, and that this had been tightly constricted was proved by the ring of ulceration which surrounded it, at the point of constriction, close to its junction with the cæcum. He believed that the strangulation must be explained by supposing that some inflammatory exudation had taken place in the tissues external to the neck of the sac, and that this was the cause of the stricture. From whatever cause it had arisen it was very tight, for it was with the greatest difficulty that the extremity of the hernia knife could be got beneath it to divide it.

Another point of interest was, he said, the acute symptoms which were produced. One would scarcely have imagined that constriction of the appendix would have produced such urgent symptoms, and such early vomiting, for it must be borne in mind that this was a very different thing to strangulation of a portion of the intestine, in which the perfect condition of the tube was essential to life. With regard to the appendix cæci it was not so; this tube might become obliterated without any absolute detriment to the patient, and Mr. Pick supposed that if the operation could be performed with safety it might be removed without in any way interfering with the natural functions of the individual. The symptoms of strangulation were due, no doubt, to arrested peristaltic action; but it was difficult to understand why this arrested peristaltic action should have taken place so suddenly from constriction of a small tube like the vermiform appendix, which was not essential to life. Mr. Pick further stated that at the time of the operation he was in considerable doubt as to how he should deal with the appendix; whether he should return it into the cavity of the abdomen, or whether, having freed the constriction, he should leave it in the sac. On the one hand, it seemed a hazardous proceeding to return it, actually inflamed as it was, and

covered over by shaggy lymph, into the abdominal cavity; and on the other hand, if it were allowed to remain, it would undoubtedly contract adhesions to the tissues with which it was in contact, and would therefore always remain as an incurable hernia, and might possibly become again strangulated by the contraction of the tissue during cicatrization. Under these circumstances he decided upon pushing it back just within the cavity of the abdomen, and leaving it there in the expectation that it would contract adhesions to the peritoneum in the neighborhood of the abdominal ring. And that this did occur was shown by the post-mortem examination, when it was found that it was already adherent in this situation.—*London Lancet.*

EPITHELIOMA OF THE UPPER END OF THE ŒSOPHAGUS. (Case under the care of DR. POORE.)

R. S., a charwoman, aged sixty, first attended on March 1, 1877. She was much emaciated, and stated that since Christmas she had had a difficulty in swallowing which had gradually increased. Attempts at swallowing produced fits of coughing. There was some pain between the shoulders. She had spat blood on two or three occasions. She had miscarried three times, one child alive and delicate, one stillborn. On examination, the epithelium of the tongue was patchy, thick in places and thin in others, and the pharynx was slightly congested. There was decided prominence of the larynx, and slight and doubtful enlargement of glands at angle of jaw. The larynx appeared healthy when examined by the laryngoscope, but between the arytenoid cartilages and the pharyngeal wall muco-pus was seen exuding. On passing the finger into the pharynx an obstruction was felt at the upper part of the œsophagus, and a speck of blood was found upon the tip of the finger on withdrawal. The examination caused the patient to cough, and she expectorated some blood and a small fleshy particle which, when examined under the microscope, revealed nests of epithelial cells quite characteristic of epithelial cancer. The patient was advised to become an inpatient, but on her declining to do so she was ordered a morphia linctus to ease the discomfort of the throat, carbolic-acid

lozenges to counteract the fetor, and cod-liver oil in large doses. After a time she ceased to attend.

Remarks: The interest of the case consists in the certainty of the diagnosis at the first visit by means of the microscope. The appearance of the tongue and the history of the miscarriage rather pointed towards syphilis, but the discovery of the structure of epithelioma in the expectorated particle left no doubt as to the true nature of the case.

Tumor as big as a hazel-nut, growing from the Left Ventricular Band.—W. W., aged forty-eight, a work-house master, was sent into the hospital on the 18th of July, 1878, suffering from hoarseness and dyspnœa. He had been a healthy man, with the exception of an attack of gonorrhœa. His wife had miscarried three times, but there was no direct evidence of syphilis. The patient stated that he had been liable for some time to a relaxed sore-throat, that he became hoarse somewhat suddenly about a year ago, and that during the last month his symptoms had very much intensified. On July 25 he was seen by Dr. Poore, and subjected to a laryngoscopic examination. The dyspnœa was increased when the patient extended his neck for the purpose of laryngoscopy, so that the examination was not easy, and had to be performed with all possible quickness. A tumor was distinctly visible on the left side of the larynx at its anterior part, and situated, as was thought, below the left vocal cord; the left cord being apparently stretched over it like a shining band. The breathing was stridulous during both inspiration and expiration, and on applying the hand over the thyroid cartilage a distinct vibration could be felt during both respiratory acts, especially on the left side. There was a considerable amount of tenacious glairy sputa. All the extraordinary muscles of inspiration were used, and there was some swelling of the feet. There was no prostration, and no cyanotic tint of the face.

He was placed on large doses of iodide of potassium, on the chance that the tumor might be of syphilitic origin; but no improvement having taken place in two days, it was decided that an operation was necessary. In consultation with Mr. Marshall it was decided that no attempt to remove the tumor *per vias*

naturales would prove successful. The base appeared to be nearly as thick as the growth itself, and the inability of the patient to submit to more than a momentary laryngoscopic examination, together with the fact that the tumor completely closed the forepart of the glottis, would have rendered the passing of an écraseur over the growth impossible; and any attempt to do so was not thought either desirable or justifiable. It was considered, therefore, that thyrotomy would be the proper operation; and it was resolved that tracheotomy should be first performed, that the thyrotomy should be done subsequently after the lapse of some days, so as to give the patient time to recover from the shock of the first operation, and to allow of the second operation being performed with greater deliberation.

Tracheotomy was performed with all possible skill by Mr. Bond, the house surgeon, but the patient never rallied afterwards, and died in a few hours.

On post-mortem examination the mucous membrane of the larynx was found to be considerably injected, especially at the upper and left part. Attached to the left ventrical band at its forepart was a smooth, lobed, hard growth as big as a hazel-nut, and with a broad base. It was of a pinkish color, and marked on its upper surface by a white streak. This appearance had led to the idea of its being situated below the cord. A microscopical examination by Mr. Boyd, the surgical registrar, showed the growth to consist principally of blood-vessels with small, round nucleated cells between them, and some few spindle-shaped cells.

A Cockle-shell in the Trachea.—T. M., aged eight, was sent to the Throat Department for examination by Mr. Godlee, by whom he had been admitted to the hospital, with a view to operation. It appeared that on the 4th of July the boy was playing in the Regent's park, when a small cockle-shell, which he had picked off the path and placed in his mouth, accidentally slipped into his windpipe. The boy was suffering from some dyspnœa, with slight recession of the thorax during inspiration; both inspiration and expiration were accompanied by bronchitic râles, audible all over the chest. The boy pointed to the trachea as the seat of his trouble, the pressure on a spot about one inch above the sternal notch caused him pain. He was troubled occasion-

ally with fits of spasmodic coughing. He was a timid, fidgety lad, and by no means a good subject for laryngoscopic observation. On July 10, after much trouble, a momentary glance of the larynx was obtained, and a white body was seen below the vocal cords. On the following morning a further examination was made, and a white body was distinctly visible on the anterior wall of the trachea, about an inch below the vocal cords. While endeavoring to demonstrate the presence of this foreign body to one of the students who was present, the patient was seized with a very violent fit of coughing, and coughed up a small cockle-shell nearly as big as a threepenny piece. The shell was perfect with sharp edges, and had apparently got fixed in the mucous folds of the trachea. The shell had been in the trachea just a week. After coughing up the shell all symptoms disappeared, and the patient left the hospital on the following day quite well.

LARGE INTRA-MURAL MYOMA REMOVED BY ENUCLEATION. (Under the care of Mr. LAWSON TAIT.)

A. H., aged twenty-eight, was admitted into the hospital on May 15th, suffering from profuse menorrhagia. The fundus was found to be retroflected to an extreme degree, and of very large size. The diagnosis of myoma was made, and an attempt to dilate the cervix by Mr. Tait's plugs was made, but it was unsuccessful owing to the extreme retroflexion. The cervix was therefore completely divided by the hysterotome, the thick capsule of the tumor opened, and the tumor separated as far as the fingers could reach. The patient was so extremely anæmic that everything done to her was done in the constant fear of the production of heart-clot, and even the administration of ether in her case seemed risky. Nearly eight weeks elapsed after this preliminary proceeding before it was deemed safe to do anything more, when it was found that the opening into the capsule had closed, though the division of the cervix had remained permanent. On July 26th the dilating plugs were applied, and next day the cervix was so open that a large free incision over the tumor was made, and the tumor freely separated. On August 4th the tumor was found presenting through the os, and a large piece of it was removed by the écraseur. On August 12th the rest of it

was found extruded and hanging by a thick pedicle, which was divided and the mass removed. For many weeks after this operation she hung between life and death, and made a convalescence protracted over nearly eight months.

Mr. Tait is of opinion that in such a case removal of the ovaries is a much safer operation than enucleation of the tumor, and in his hands it has given much better results. Out of five cases where he has performed vaginal enucleation in the last three years, there have been only two recoveries, whilst of seven similar cases in which he has performed oöphorectomy there has been only one death, and that death was due solely to the operation having been too long delayed.

CASE OF PHTHISIS, PROBABLY OF CONTAGIOUS ORIGIN. Under the care of Dr. MURRELL.)

The chief point of interest in the case was the history, the symptoms having appeared immediately after nursing her husband, who died of phthisis.

Lizzie E., aged twenty-six, was admitted on Sept. 1st, 1879, with phthisis pulmonalis. Her family history was good. Her father, a captain in the navy, was always a very strong man and died of fever abroad. He was not subject to cough, and never, to the best of her knowledge, suffered from any chest complaint. Her mother was living, aged sixty-four years, had been "asthmatical" for the last twenty years. She also had a cough, more or less, all the year round, and was very short of breath if she went out in the fog. The patient had three sisters, all well and healthy. There was no apparent trace of consumption at all in patient's own family.

She was quite well in every way up to the time of her marriage. Her husband, as far as she knew, was a healthy man when she married him, but he came of a consumptive stock. His father died of bronchitis and his mother from phthisis. One of his brothers was, at this time, dying from consumption, and another was far gone with it The patient was married in April, 1878, and in the second week of the following July her husband broke a blood-vessel and lost a great deal of blood. After that he had a cough, grew weaker and weaker, and could hardly do anything.

In August he got too weak to go out, and from that time till the day of his death, in February, 1879, he was assiduously nursed by his wife. He expectorated a great deal, a spitting-cup was of no use to him, and he had to have a hand-basin with water to spit into. Patient hardly ever left him and slept with him. At night he perspired very much, but not enough to wet patient's things, or make her cold. She was in and out of bed pretty well all the night, through the long cold winter of 1878–9, and he refused to have a fire in the room.

After her husband's death the patient was worried and pressed for money, but did not suffer in any way from want of food or comforts. She went to live with her mother and was as well off there as she would have been at home, or perhaps better. She had no cough up to the day of her husband's death; she was then completely knocked up, was seized with cold shivers, which continued for three days. She had a bad cough, and that gradually got worse. Nine months after she had coarse crepitation at both apices, was losing flesh, and sweating profusely at night—was in fact consumptive.

It is certainly a question worth considering whether in cases of advanced consumption with copious expectoration there is not some danger of infection, however slight.

POPLITEAL ANEURISM; TREATMENT BY FLEXION; CURE. (Under the care of Mr. NEWNHAM.)

Leorge L., aged forty-four, a goods-guard, was admitted with popliteal aneurism. His previous history was excellent: he had never had syphilis, and had always been abstemious. Several months before he noticed the aneurism he wrenched his knee, and had to lay up for a short time. He could remember no other injury to the leg, nor could he recollect having made a forcible or sudden muscular effort to lift weights.

The history of the aneurism was as follows: Three weeks before admission (since January 10), the patient noticed a pulsation in the left popliteal space. His attention was directed to the seat of disease by pain in the calf when walking, the pain passing off if he stood still even for a moment. He thought that the

swelling when he first noticed it was nearly as large as on admission.

On January 31 he was taken in under the care of Mr. Newnham. In the left popliteal space there was a tumor, about the size of a hen's egg. It had an extensile pulsation which could be arrested by pressure on the femoral artery. The area of pulsation extended over the popliteal space. There was a distinct bruit, and a thrill was communicated to the hand. On examining the other arteries of the body, the left radial and temporal arteries were found feebler than the corresponding arteries on the opposite side, but no intrathoracic tumor could be detected. The superficial arteries had not an atheromatous feel, the heart was healthy, and no visceral disease could be discovered. The patient had a cataract of the right eye, which did not result from injury. He was a corpulent man, and somewhat aged in appearance, but his health, he said, was exceedingly good.

The patient was put on meat diet, and given five grains of the iodide of potassium and fifteen of the bicarbonate of potash. He was kept in bed and had an occasional purge. On February 4, he was directed to keep his thigh flexed on the abdomen, and the leg on the thigh; the iodide was increased to ten grains. On the 6th, he was put on a modified Bellingham's diet. Breakfast: bread and butter, two ounces; milk, two ounces. Dinner: meat, two ounces; bread, two ounces; beer, two ounces. Supper: bread and butter, two ounces; milk, two ounces. On the 8th, the extensile pulsation had ceased in the tumor, although the pulsation in the popliteal and posterior tibial arteries could be felt. On the 9th, the angle of flexion was increased; daily allowance of fluid, fourteen ounces. On the 11th, flexion was discontinued; patient put on meat diet, with one pint of fluid. The aneurismal sac was felt to the inner side of the popliteal artery; it was a little larger than a walnut, and felt solid to the touch. The patient was left in bed for ten days after pulsation had ceased, and was discharged on the 9th of March, when the tumor could be scarcely felt.

Summary.

Collaborators:

DR. L. W. CASE, DR. R. TILLEY,
DR. BYRON W. GRIFFIN, DR. W. L. DORLAND.

PRACTICAL MEDICINE.

DILATATION OF THE STOMACH.—(M. Sée, *Jour. de Méd.* Aug., 1880.)

Dilatation of the stomach is much more frequent than supposed, being the origin of gastric troubles which are either attributed to simple dyspepsia or to an organic lesion. It is all the more useful to discover this affection, as we have in washing out of the stomach a very efficacious means of remedying it. Among the functional symptoms of dilatation of the stomach, the most important is vomiting; it is peculiar in that when the malady has arrived to a certain degree, it is really enormous; one patient vomited twenty or twenty-five liters a day. Vomiting is sometimes followed by a state of profound collapse, by vertigo, by a real tendency to syncope. The matter vomited is of a peculiar nature, being generally mucus, and of a coffee and milk color, as is also seen in cancer; but yet this color cannot always be explained by the presence of blood mixed with this liquid. If vomiting ceases suddenly, it is usually a bad sign; it would be favorable if it coincided with a great amelioration of the general condition; but if, on the contrary, the patient remains weak, if he is not improving at the same time, the cessation of vomiting indicates that the contractility of the stomach has diminished, and that the patient no longer has the power to

vomit. A frequent symptom, and one that accompanies the vomiting, is constipation. This is due to the fact that a part of the fluids, which normally should be diverted to the intestines, do not go there. Moreover, it is known that among the functions of the bile, one of the most remarkable is its causing contractions of the intestines. Now, in this case, and on account of the vomiting, only a very small quantity of the food enters the bowels, the secretion of bile is suspended, the intestinal contractions are diminished, and there follows a more or less obstinate constipation.

The appetite presents some singular variations; it diminishes or disappears even in subjects who are great eaters, and attacked with dilatation as the result of their excess; but a remarkable fact is that the appetite may return during certain periods. In those treated by washing out the stomach, this return of the appetite is speedy. In one patient of the service in particular, this phenomenon was as remarkable as the dilatation was enormous—so great that an ordinary sound of sixty centimeters in length did not reach the bottom of the stomach. And here is an important point in practice, for it may happen in certain cases, as in this one, that one does not get the desired result because the stomach is not entirely emptied by the sound; from the day when this is accomplished, an amelioration is quickly produced.

Concurrently with these local phenomena, the patient is seen to grow thinner everywhere except in the abdomen, which sometimes deceives the physician. Kussmaul has also noted this fact, that following profuse vomiting, it seems as if all the fluids of the economy disappeared, the parts become dry, and he attributes even to the peculiar state of the nervous system which results from it, the convulsions which often occur in patients of this class. An important remark, also, is that tympanitis very often exists, but that here, contrary to what is seen in ordinary cases, this tympanitis does not bring on dyspnœa. It is because here, at the same time the stomach dilates, it falls; and that in spite of the accumulation of liquid and gas, the diaphragm is not pushed up by the stomach, which is often found at a level considerably below. It is, moreover, to this tympanitis that we

must attribute the pains, often very sharp, which exist in patients affected with dilatation. M. Sée believes that the pains generally called gastralgic are always due to the distention of the stomach by gases.

Dilatation of the stomach is revealed by a certain number of physical signs which confirm those already indicated. By simple inspection, for example, the prominence of the stomach is seen, but only when the disease is very much advanced. This prominence may be increased by giving the patient an effervescent powder; but one would run the risk of causing it in a healthy subject. The fluctuation, the gurgling and ballottement are signs of much more importance and which permit a certain diagnosis, especially when aided by percussion. The latter gives a dull sound at the inferior part, and a resonant sound at the superior portion when the patient is standing. Sometimes even a metallic sound is heard if there be much liquid present. A difficulty presents in certain cases; it is that the dilatation may be of the colon and not of the stomach. M. Sée has seen a patient in whom one would suppose, according to all the signs, a dilatation of the stomach existed, while the introduction of the sound into the stomach showed that it had the normal dimensions and contained no fluid. The sound is, indeed, the true means of diagnosis, for it gives certain indications by using certain precautions. After having introduced it, one may prove by aspiration the presence of an entirely abnormal quantity of fluid in the stomach. Further, one can always suppose a dilatation when the length of sound introduced exceeds sixty to seventy centimeters from the incisor teeth. Another procedure consists in searching for the extremity of the sound through the abdominal walls; but such maneuvers are dangerous, and should be absolutely proscribed. There is but one means of remedying this condition of the stomach; it is the direct washing out of the organ with the stomach-pump, or with M. Faucher's apparatus, which M. Sée has used with great success in his service. From one patient a very fœtid liquid was withdrawn, of fæcal odor and of a coffee-and-milk color, and containing gastric juice—a fact contrary to what some authors have asserted, according to whom, this substance is constantly lacking in the secretion of the stomach.

This fluid was rapidly modified by evacuation with the caoutchouc syphon and washing with alkaline water. This method might, according to M. Sée, be used in many other affections of the stomach, and is, moreover, rendered very easy by the apparatus of M. Faucher, much less dreaded and less painful for the patient than the œsophageal sound and the maneuver which it necessitates for the successive evacuation of fluid in the stomach and injection of the medicated liquid.

MEMBRANOUS ENTERITIS.—(M. Sée, *Journal de Médecine*, Aug., 1880).

The author remarked in one of his lectures, upon a peculiar state of the intestines, very often unknown to the physician, and which is manifested by the expulsion of membranous products of variable form. This has been described under the name of membranous enteritis; but this affection, associated oftenest with constipation, is much more frequent than is supposed, and if the dejecta of certain patients were examined oftener and more attentively than is usually done, one would encounter fragments resembling sometimes the white of egg, or more often still, vermicelli or the débris of teniæ. It is generally under one of these three forms that these products are found and which, upon examination, are found to consist of mucine with a little albumen and fragments of epitheleum, but not containing fibrine, that is to say the inflammatory element is lacking, which indicates that in this case the term enteritis is not justified; it would be more exact to say enterorrhœa, for the affection is very superficial. It is a state of considerable gravity, for the patients often have severe intestinal pains, and discharge sometimes voluminous masses of these products even without going to stool. There are also very often symptoms of obstruction, with considerable tympanism, and very rapid amelioration, when one can remove the obstruction, which should not be done with purgatives, as the patients do not generally support them well. M. Sée considers this condition as very frequent among women. Among them a large number of those complaining of dyspepsia are simply constipated, which is also very frequently accompanied with this membranous enteritis. That which proves

clearly that in this case it is the bowel and not the stomach which suffers, is that the pains are produced a long time after the meal, and that as soon as regimen, exercise and hygiene have caused the constipation to disappear the health is re-established. Many women regarded as neuropathic, are often only in the same situation. They should be given simple laxatives, such as oil of sweet almonds or flaxseed, and regimen and exercise should be especially insisted upon.

PRUSSIC ACID AND A NEW ALKALOID IN TOBACCO-SMOKE.—Dr. Le Bon terminates with the following conclusions an elaborate paper which he has communicated to the *Journal de Thérapeutique*, September 25th, On the Existence in Tobacco-smoke of Notable Proportions of Prussic Acid, and on the Existence of a New Alkaloid:

1. The principles of tobacco-smoke, which are condensed by cooling in the mouth and lungs or in the apparatus destined to collect them, contain nicotine, carbonate of ammonia, various tarry matters, coloring substances, prussic acid combined with bases, and very odorous and very poisonous aromatic principles (*Medical Times and Gazette*). In the smoke these various substances are found mixed with a large proportion of the vapor of water and of various gaseous compounds, principally the oxide of carbon and carbonic acid.

2. The liquid resulting from the condensation of the preceding substance is endowed with extremely poisonous properties. It suffices to inject very small quantities into the circulatory system of an animal, or to cause it to be respired for some time, to induce death, after the exhibition of various signs of paralysis.

3. The properties of tobacco-smoke, which up to the present time have been attributed solely to nicotine, are also due to prussic acid and to various aromatic principles, especially an alkaloid, collidine. This is a liquid body of an agreeable and very penetrating odor, the presence of which had been exhibited in the distillation of various organic matters, but the physiological properties of which were entirely unknown. It contributes in great part to giving its odor to tobacco-smoke, and so pene-

trating is its perfume that but a single drop suffices to impart a very strong odor to a large quantity of water.

4. Collidine is an alkaloid as poisonous as nicotine. The twentieth part of a drop kills a frog rapidly, producing symptoms of paralysis. Only a few instants' breathing it, induce muscular debility and vertigo.

5. It is to the presence of prussic acid and the various aromatic principles that several phenomena are due, such as vertigo, pain in the head and nausea, which are produced by certain tobaccos either poor in nicotine or destitute of it, while other tobaccos rich in nicotine do not produce any analogous effects.

6. The proportion of prussic acid and aromatic principles contained in tobacco smoke varies in different tobaccos, those of Havana and the Levant containing the strongest doses.

7. The black semi-fluid matter which condenses in the interior of pipes and cigar-holders contains all the substances enumerated, and especially large quantities of nicotine. It is extraordinarily poisonous, two or three drops sufficing to kill an animal of small size.

8. The combustion of tobacco destroys only a small part of the nicotine which it contains, so that this is found in great part in the smoke. The proportion susceptible of being absorbed by smokers, and which we have determined in our experiments, varies according to the conditions in which these latter are placed. It is scarcely ever less than fifty centigrams in each hundred grams of tobacco smoked. The quantity of ammonia absorbed at the same time is about equal.

9. Of the different modes of smoking, that in which the amount of nicotine and the various other principles absorbed is greatest, is smoking, so that the smoke is respired; that in which the proportion is least, is smoking the narghil or pipe with a long tube in the open air without respiring the smoke.

10. Nicotine kills animals instantly in doses of two or three drops, but in infinitely smaller doses it causes paralysis and death. A frog introduced into a vessel containing an aqueous solution of nicotine at $\frac{1}{20000}$, or about one drop to a liter of water, succumbs in some hours. The same occurs if the frog be placed under a funnel containing a single drop of nicotine in a roll of

cotton wool. The vapor disengaged from nicotine while boiling kills animals instantly without leaving them time to move.

11. Tobacco smoke contains about eight liters of oxide of carbon per hundred grams of tobacco burned. Our experiments prove that it is not to this gas that it owes its poisonous properties.

12. Among the most certain effects which the smoke of tobacco determines in the long run in man, may be mentioned visual disturbances, palpitations, tendency to vertigo, and especially diminution of memory.—*Louisville Medical News.*

THE REGULATION OF BODY HEAT.

A Fränkel, in *Centralblatt für die Med. Wissenschaften*, endeavors to solve the question, in what way and through what means, during changes in the production of heat in the body, the changes in the cutaneous circulation which make up the compensation through the giving off of heat, are effected. Heidenhain—as is well known—was the first to prove that the heat of the body is affected by the system of nerves under the sole agency of the circulation, by showing that, under reflex as well as indirect irritation of the medulla oblongata, the temperature of the blood in the large vessels decreases. The acceleration of the blood stream, observed by Heidenhain, has been traced by Ostroumoff to an irritation of the nerve-fibers which dilate the vessels. Over-production of heat in the organism under normal conditions, is dependent upon strong muscular activity and increased food absorption, both of which go hand in hand with increase of production of carbonic acid. The carbonic acid, however, directly irritates the centers located in the medulla oblongata, and consequently the formation of this end-product of the change of matter must be also connected with regulation of heat. As the accumulation of carbonic acid coincides with deficiency of oxygen, the author tried to decide his task by insufflation of differently combined quantities of carbonic acid, oxygen and nitrogen into the lungs of dogs. The insufflation was done with a compressible India-rubber ball, which was connected by a three-branched tube canula, tied into the trachea of the animal, with gas reservoirs, and with the atmospheric air. The

cutaneous temperament of the paws and that of the rectum were measured. Some days before carrying out these experiments one sciatic nerve was cut through, in order to ascertain, by comparative measurements of both hind-paws, whether the changes in the cutaneous temperature, eventually to be observed under the influence of insufflation, originated from a changed innervation of the vessels remaining in connection with the centers or not. Three series of experiments showed, on the side on which the sciatic nerve was uncut, a rise of temperature; on the paralyzed side a standstill, or even fall of temperature. The inconstancy of the influence of the accumulation of carbonic acid on the irritation of the nerves dilating the vessels, observed by the author in other experiments, he traces back to prolonged restraint of the animals, and the simultaneous decrease of the temperature inside the body, and the continuous influence of the curare. The author is now of opinion that the increased production of carbonic acid in the organism, which occurs in increased temperatures under the influence of muscular activity, as well as of absorption—absorption of food—is one of the factors which regulate the activity of the nervous apparatus that governs the extent of the production of heat.

SURGERY.

TREPHINING OF THE SKULL OF A LUNATIC AFTER OLD HEAD-INJURY—COMPLETE RECOVERY.—From the *British Medical Journal* of October 16, we copy this extraordinary and instructive report:

Under the care of Mr. George E. Wherry, surgeon to the hospital, Samuel S., aged thirty-eight, was at work in August, 1878, when a hammer fell six feet on his head. It did not unsense him; but ever after he felt the effects of the blow. At first it was as if he had "a cold in the head." In January, 1879, he was ill in bed for many weeks. After this when he tried to work he was soon obliged to leave off, was attacked by giddiness, by thrills up his back, and by tingling and numbness in his legs. He tried again to work in August, 1879, one year after the

injury, but had no idea of what he had to do, and could not fix his mind on anything.

In October, 1879, he came to the hospital complaining of "scrunching" noises in the ears and dragging pains in the vertex, without rest at night; aching pains in both arms and along the insides of the legs, and cold feet. He was admitted into the medical ward, and it was then observed that, of all the symptoms, the most constant and distinct was the "scrunching" feeling in the vertex; and often he placed his fingers over the stellate and adherent cicatrix which marked the hammer-blow. During the last week in 1879 his symptoms were aggravated; he grew irritable and morose, and talked of suicide. The pupil of the left eye was larger, and he had very little sleep.

On January 1, 1880, he made a most determined attempt at suicide by throwing himself over from the staircase at the top of the hospital. His life was saved by the courage of a probationer, Miss Stockburn; but he succeeded in jumping from a lower staircase, and fell fifteen feet, damaging his left ankle. On the following day he was sent to Fullbourn Lunatic Asylum, under the care of Dr. Bacon. The same symptoms continued which have been before described, including the pain in the head in the region of the scar.

He remained in this condition until Dr. Bacon considered that an exploratory operation was to be advised; and accordingly, on March 12, Mr. Wherry removed with the trephine a piece of parietal bone at the seat of injury, and found the dura mater beneath of a deep purple color, but apparently healthy. It bulged, with pulsations, into the wound. The portion of skull removed was three-quarters of an inch in diameter, and had not been fractured. Bleeding vessels were tied with fine hemp thread. Silver wire sutures and carbolized cotton-wool dressings were applied. Ether was given during the operation. The wound healed rapidly and well, and the patient's condition so improved that he went to work in the carpenter's shop attached to the asylum four weeks after the operation. He was discharged from the asylum on June 28, and is now (September 16, 1880) at his regular work as a wood-carver, earning a living for his wife and family.

The operation was undertaken with the hope of removing some

source of irritation to the brain which might be found in the skull or dura mater beneath the scar. The history of the case, and the symptoms, although they were more general than local, pointed to the lesion as the cause of his lunacy; and although no source of irritation was discovered, the patient recovered rapidly both his bodily and mental powers after the operation of trephining. The reason for this relief to the brain is not easy to explain, but the facts recorded may be of some interest.

A NOVEL MODE OF TREATMENT OF GONORRHEAL OPHTHALMIA.—Mr. George Critchett, F.R.C.S., reports in the *Lancet* a case of gonorrheal ophthalmia in which he had recourse to a heroic and novel method of treatment. Owing to the extreme acuteness and severity of the symptoms, the difficulty in separating the lids or exposing the cornea, and the impossibility of getting any solution into contact with the conjunctival surface, he had relinquished all hope of saving the sight, and felt justified in adopting any treatment, however severe, that promised a ray of hope. He passed a small silver director under the upper lid as far as the edge of the orbit, against which he kept it pressed, and then with a small sharp-pointed bistoury completely divided the lid perpendicularly as far as the margin of the eyebrow. In order to more completely uncover the cornea he separated the two angles of the divided tarsus and fixed them with fine sutures to the skin of the eyebrow. The cornea looked steamy but not ulcerated, and was buried in chemosed conjunctiva. The immediate effect of this proceeding was to diminish the redness and swelling of the lids and conjunctival membrane, and completely to expose the surface. The subsequent treatment consisted in painting over the entire surface of the conjunctiva three times daily with a solution of nitrate of silver, thirty grains to the ounce, and frequently cleansing and syringing with a solution of alum, ten grains to the ounce. A piece of linen moistened in this solution was kept constantly applied to the eye. This plan was continued, with gradual abatement of the symptoms, for a month; a weaker solution was then substituted. At the end of six weeks from the commencement of the treatment the eye had recovered with a perfectly bright, healthy cornea. At the ter-

mination of another fortnight the child was again placed under the influence of an anæsthetic, and the edges of the divided lids were pared and brought together with fine sutures. Good union occurred, the deformity very slight, and the lid perfectly performs its functions. In the early part of the treatment the other eye was kept carefully closed with strapping so as to prevent any risk of inoculation.—*Medical Record.*

CYSTS OF THE MESENTERY. ABLATION BY GASTROTOMY. RECOVERY. By Drs. MILLARD and TILLAUX. (*Bulletin de l' Académie de Médecine.*)

A man of thirty-one years, on the 25th of May, 1880, previously having enjoyed perfect health, was suddenly in the street seized with a pain in the abdomen, so violent that he could not proceed. After a quarter of an hour he succeeded, still "doubled up" with pain, to reach his home. Did not sleep, nor even remain in bed, but passed the whole night rolling on the floor. Several injections were tried without effect, and an obstinate constipation set in and continued from the commencement of the attack of pain.

May 26. No rest was secured, notwithstanding the anodynes which were administered.

May 27. He was taken to the Hospital Lariboisière. A tumor in the right side of abdomen was discovered, and pronounced to be a floating kidney. The pains now came on at intervals of about ten minutes in the twenty-four hours. They were likened by the patient to a fire in the stomach and bowels.

June 11, he placed himself under care of Dr. M. Millard. The periodic pain was still present, he could not sleep for more than two hours at a time, and even then seated in bed and his head bent on his knees. The horizontal position immediately produced suffocation.

The tumor in the abdomen, on the right side of the umbilicus, was about the size of the head of a fœtus. The patient repeatedly affirmed that he had never noticed it before the attack of pain above referred to. It was round, smooth, very movable and not tender on pressure. After several days Dr. Millard, from the sudden appearance of the difficulty, the abdominal pain and

persistent constipation, diagnosed chronic invagination of the intestine.

The treatment adopted was the use of the constant current, massage of the abdominal region, enemas of various kinds. No benefit followed; the pains were just as severe; the patient could eat nothing, and for forty days had not had a passage of the bowels without the aid of an injection.

He was then transferred to the service of Dr. Tillaux, and although he got a little better for a few days, the same pains recurred, and the patient demanded some operation for his relief.

July 3. Gastrotomy was performed by Dr. Tillaux, in the presence of Drs. Millard, Féréol and Peyrol, the object being to disinvaginate, if possible, if not, to cut out and apply sutures.

The abdomen being well opened we discovered, instead of invagination, a tumor of the mesentery.

The notes taken by the interne are as follows:

Anæsthesia by chloroform; the abdominal walls shaven and washed with 20 per cent. of carbolic acid. The incision, in median line, about fifteen centimeters; not much hæmorrhage. The peritoneum taken up with a forceps and opened. Abdominal cavity explored with the hand. Incision, increased with a scissors five or six centimeters, allowed a round, smooth tumor about the size of the head of a fœtus to escape. It was situated in the mesentery, and not adherent to the intestines. It was red and vascular on the surface.

Small trocar inserted, but no discharge until the trocar was withdrawn, when a jet of yellowish, creamy fluid appeared. The intestines were protected with warm napkins and the tumor incised, and the whole of the creamy fluid removed. The pedicle was then ligatured with seven pieces of catgut, the walls cut off with scissors and returned to the abdomen. The blood was removed from the abdomen with a sponge, and sutures embracing the entire thickness of the abdominal walls were inserted to close the wounds. Lister's dressing applied.

During the day of operation two hypodermic injections of morphia. No further pain, no vomiting. Slept several hours at a time, and smoked his pipe.

July 4. Skin moist, normal facial expression, pulse 120; temperature, morning, 38.2; evening, 38.8.

The remaining part of the notes do not differ from the general reports on gastrotomy.

August 1, the patient was well, and on the 17th presented himself before the Académie de Médecine when the report was read.

RARE FORM OF DIFFUSE PHLEGMON.—(M. Broca, *Journal de Médecine*, p. 351. Aug., 1880).

A man of forty entered the service at Necker Hospital with a diffuse phlegmon of the arm of a peculiar form, as well because of its etiology as its special aspect. This man had received no blow, wound or injury of any kind, but several days previous had felt a pretty sharp pain in the back of his left hand. The affection seemed to have begun deep in the tissues and spontaneously. The only cause to which it could be imputed was an excess of work which consisted in lifting pieces of metal. Now an excess of this kind may readily bring on inflammation of that sort of serous sac, which covers the extensor tendons at their lower extremities; this sac presents no regularity; it is rather loose cellular tissue than a true serous membrane, but one may nevertheless compare what has happened to what is produced in the majority of phlegmons of the arm. In this case indeed, the inflammation is nearly always due to a solution of continuity of the skin complicated with angioleucitis, or to a contusion and inflammation of the serous sac of the olecranon; now here it is still a serous membrane of a peculiar nature, which has been the point of departure of the trouble, and under the influence of an injury less frequent than the others. There has been from the beginning, redness and swelling of the back of the hand; this extended to the forearm and has made a very threatening progress toward the arm. In this part the swelling had assumed as regards its form a very remarkable character; the swelling was circular and had extended upward around the arm like a muff, limited brusquely as by a ligature. This character of muff-like swelling which has been well described by Chassaignac, has been especially observed

in the diffuse periostitic phlegmons of limbs with a single bone. It may, however, show itself under other conditions, and is recognized by the fact that immediately above it the form of the limb is not altered. The skin is not red, and the œdema presents the aspect of that which is encountered as the result of profound compressions.

In the patient thus attacked, the general condition is grave, and there are, moreover, formidable local accidents to be feared. If the disease is to be left to itself, at the end of 24 hours, the muff would have reached the shoulder and intervention would perhaps be too late. Gangrene is imminent, and not only the skin would be sphacelated, but also the entire member would be in such a state as to require disarticulation of the shoulder. To remedy such a situation there are no other means than incisions. A single one is sufficient, as in the present case, when it is seen to allow the ready escape of the fluids which infiltrate the parts, and diminishes the tension. If not, several incisions should be made. The incisions always bleed a good deal because the vessels, fixed by adhesions, do not contract. Therefore one should carefully watch the escape of blood which speedily becomes excessive and might compromise the life of the patient.

DIASTASIS OF THE FOOT.—(M. Broca, *Journal de Médecine*, p. 352, Aug., 1880.)

The peculiar anatomical conditions of the foot are such that injuries may produce lesions of a somewhat special nature. M. Broca had in his service a man who had been hurt in attempting to stop a runaway horse. At first the swelling did not allow detection of anything except mobility without crepitation, but at the end of some days, he was able to determine the lesion in a more precise manner, and found the same symptom still more clearly marked; nearly always abnormal mobility without crepitation indicates the existence of an articular lesion; still the symptom may be observed in fractures of the metatarsals, and is precisely what renders the differential diagnosis difficult. In this case it was easy to see that the mobility existed between the first cuneiform and the first metatarsal; to find the exact seat of

this articulation, there is one point important to remember; it is that it is found precisely at the middle of the internal border of the foot. This point, indicated by Blandin, may be very useful in operative medicine, for the swelling may easily cause others to disappear. In this case then it was exactly at this point that the mobility was located; there was a displacement vertically causing an elevation of about half a centimeter (1-5 inch).

To explain this displacement we must admit, as a consequence, the rupture of the ligaments, and it is this constitutes diastasis, properly speaking, a more considerable lesion than simple sprain, since there is displacement, and less than dislocation since the displacement is not maintained. Immobilization and repose are the only means to be employed in such lesions, which ordinarily heal quicker than a fracture in the same region. That is the principal interest there is in establishing a precise diagnosis.

GYNÆCOLOGY.

ON INFLAMMATION OF THE VULVO-VAGINAL GLAND.—Martineau. (*France Médicale*, July 21, 1880).

The vulvo-vaginal glands or glands of Bartholin, two in number, are found on each side of the vulva, in a triangular space bounded by the vagina within, the rectum behind and the ascending branch of the ischium without; they correspond to the inferior segment of the labium majus and their excretory duct opens without the hymen or its débris, the carunculæ myrtiformes in the furrow which separates them from the labia minora at the junction of the lower fourth with the upper three-fourths of the vulvar ring.

This acinous gland may become inflamed, as well as its excretory duct, under the influence of the causes we are about to study, and there results therefrom sometimes a painful infirmity to the woman on account of the persistence of fistulæ. The history of this inflammation has been traced with a master's hand by Huguier, who had but one fault, that of dividing his subject

without measure, of distinguishing, notably, stages which are only degrees of the inflammation. However, his description has never been surpassed, and, following the example of my predecessors, I shall frequently borrow from him.

This affection is especially observed between 17 and 30 years; it is very rare before puberty, and it is equally unfrequent in old women. Among 37 cases which have presented themselves during my service during a space of three years, I have found that 35 were between 16 and 23 years, one of 30 and one of 42 years. It is then, as seen, an affection belonging to the genital and sexual period of women. It shows itself when the physiological functions appear. The causes therefore, are generally sexual excesses, disproportion of the genital organs, menstruation, contagious affections, such as gonorrhœa of the vulva or vagina, traumatic injuries of the genital organs, rape, difficult defloration, repeated masturbation, saphism and friction of the vulva by the use of sewing machines.

Thus in the 37 cases of my service about a dozen cases were caused by abuse of coitus; I have observed several in my practice, and there is no physician who has not had an opportunity of seeing it in his private practice.

Among all these cases I will cite the two following:

The first was the case of a young woman of 22, who, meeting her lover, from whom she had been separated during the siege of Paris during the commune in 1870–71, submitted to his embraces nine times in one night. There followed from it an abscess of the left vulvo-vaginal gland, for which she sought my advice. The cure was complete at the end of eight days.

The second case was that of a young woman of 25 who lived with her parents and only saw her lover evenings. One evening between the hours of 8 and 11 coitus was repeated seven times. Two days after there was slight itching of the labium majus, then smarting and swelling; the patient entered the hospital and I found an abscess of left vulva-vaginal gland, which healed at the end of eight days.

These are not isolated cases. The gynæcologists mention several and I doubt not physicians have occasion to see them in their practice, especially in young brides, where to excessive coi-

tus must be added, difficulty of defloration and the fatigue of the bridal trip. A. Tardieu observed a case as the result of a rape; he cites a case in a girl of sixteen who was obliged to submit to the repeated assaults of her ravisher at least twenty times in less than eight days.

Various explanations have been given of the pathogenesis of this affection. Huguier thinks that in these cases the inflammation of the gland is the consequence of the functional superactivity of the gland excited by the voluptuous sensations of the sexual act; also, he admits that it is produced without this act, as by the act of masturbation, and the reading of erotic books. At first, he says, there is only a hypersecretion of the glandular fluid, then the fluid becomes cloudy, and soon after clearly purulent; the gland, which is functionally unusually active, swells and inflames. Other authors think that the immediate cause is the friction of the male organ against the gland. It is to this cause, in my opinion, that we must attribute the inflammation of the gland. Indeed there is an attrition, a traumatic injury, and this is all the more intense where there is a disproportion of the organs. It is notably to this cause that we must attribute the inflammation of the gland which comes on after the first sexual act, when the connection is difficult and painful. The following case is a striking example.

In June, 1877, a young girl of seventeen years entered ward Saint Alexis for an abscess of the left vulvo vaginal gland. A first coitus had taken place six months before, but it had been incomplete and very painful; a second attempt, followed by success, but at the price of great suffering, had been tried eight days before the patient entered the hospital. Now, on being interrogated about the defloration, she reports that the penis of her lover was enormous. The cure took place eight days after, by the spontaneous opening of the abscess.

A fact which corroborates this opinion is that the glandular inflammation is seated especially on the side where the friction of the penis is most felt. Is it an effect of the position taken by the woman or by the man? Is it from some other cause? It is always the case that most of my patients complain spontaneously of this sensation of friction being stronger on one side than

the other. I will add that the abscess is ordinarily produced on the left side; now it is, in fact, on this side that the friction of the penis is the most acutely felt during the sexual act. Is it because it corresponds to the right side of the man who has an exaggerated tendency to lean to this side? I do not know. I limit myself to stating this fact for your meditation, only insisting upon the fact of development of the abscess upon the side where there is the most friction. I will add that in most of my patients the voluptuous spasm invoked by Huguier as the cause of the inflammation, was absolutely wanting.

In the cases which recognize masturbation for their cause, it is still repeated friction with the hand, with the penis, the attrition produced by pressure of the thighs, the traumatism consequently, much more than the voluptuous excitation admitted by Huguier. The traumatism of manualization is notably evident in the following case:

It is the case of a young woman of twenty-one years, who entered Ward St. Alexis in October, 1879, for an abscess of the left vulvo-vaginal gland developed in consequence of handling on several occasions by her lover. This patient was aware that the friction was not solely of the clitoris, but also of the left side of the vulva. Moreover it is clearly to a traumatic cause that this glandular inflammation must be attributed, for in girls before puberty, in whom the vulvo-vaginal gland has not yet attained its developments, it is not seen. It is even rarely observed in adult women who are addicted to excessive masturbation. Thus, among our patients who so often present those characteristic deformities of masturbation, which I have taught you to recognize, abscess is relatively rare, notwithstanding the frequence of voluptuous sensations. I reject then the explanation of Huguier and accept the more direct influence of traumatism. At the most the repeated functional excitement of the gland might constitute a predisposition. I reject equally the opinion of M. A. Guérin, who thinks that coitus frequently repeated without reaching the final spasm produces a hypersecretion and a hypertrophy of the gland which may end in inflammation. Although I carefully question my patients on this point, which interests me specially for the pathogenisis of constitutional metritis, I have

never found the slightest connection between incomplete coitus and inflammation of the vulvo-vaginal gland. One traumatic cause, in some sort professional, of inflammation of the gland of Bartholin, is the use of the sewing machine. It was the cause in the case of a young woman of twenty-four, who entered September, 1877, for an abscess of the left vulvo-vaginal gland, occurring after ten hours' continuous use of the sewing machine daily for a week.

By the side of these traumatic cases is ranged an order of causes of which the etiologic importance is considerable. I speak of vulvo-vaginal gonorrhœa. Of the 37 cases in my service, in 25 the inflammation was due to gonorrhœa. It is generally located on one side only, being on both sides in only two cases. In fact, gonorrhœa has a predilection quite peculiar for the vulvo-vaginal gland; it settles and in some sort remains there. It is well, gentlemen, to be forewarned of this seat of gonorrhœa in women, for not only may it escape detection and become a cause of contagion, but it is the source of frequent recurrences by auto-inoculation. This localization of the specific inflammation explains the important rôle which it plays in development of abscess of the vulvo-vaginal gland, at the same time that it explains the fact, which is indeed not common, of abscess in both of these glands.

Simple vulvitis sometimes gives rise to this glandular inflammation. It is especially the case when it is of a constitutional nature. Otherwise it is only exceptionally that it gives rise to it; a traumatic cause may always be suspected.

In terminating this etiologic study, I should call your attention a moment to the relations which exist between the development of inflammation of the vulvo-vaginal gland and menstruation. Thus, in three of my patients, the inflammation was developed during the menstrual period.

The first of these patients had had twenty abscesses of the vulvo-vaginal gland, all coming on at the menstrual period. The second had frequently had abscesses at the menstrual period, but was uncertain as to the number, while the third entered with an abscess for the first time at the menstrual period. It appears

then that the courses constitute a predisposition to abscess or at least favor recurrences of an inflammation imperfectly cured.

You have without doubt, gentlemen, been struck by the fact that the abscess is seated more frequently on the left than on the right. Thus in our thirty-seven cases twenty-three were on the left side, twelve on the right and two on both sides at the same time. Why this predilection for the left side? I avow that in the presen state of the science, apart perhaps from certain traumatic cases, I cannot give an explanation applicable to all cases.

Let us pass now to the study of the symptoms. At first slight heat is felt, mild pruritus and moisture of the vulva. If the glands are palpated, one is felt to be more prominent than the other; at the same time the palpation provokes a slight pain and reveals a little stringy mucus which has already become somewhat cloudy by the presence of pus globules. The next day and the following days these symptoms increase; the pain becomes very sharp, examination locally reveals between the small lip, which is pushed inward, and the greater lip, which is pushed outward, a small hot tumor, tense and painful, which may acquire the size of a small pear, and which obliterates the vulvar orifice within. This tumor is pear-shaped; it is more prominent inward than outward, more below than above, and corresponds with the inferior segment of the greater lip; of which the upper portion undergoes no change. The corresponding portion of the smaller lip is tense and smooth, as well as the carunculæ myrtiformes. By palpation we recognize that this tumor is painful, rounded, limited, more or less resisting or fluctuating, according to the degree of inflammation. The mucous membrane is red, hyperæmic, sometimes violaceous, shining and tense over the tumor.

At the end of some days, fluctuation becomes clearly marked and the abscess opens spontaneously, to the great comfort of the patient, generally upon the mucous membrane in the vicinity of the orifice of the excretory canal or in the canal itself, from which the pus is seen to flow upon pressure. The pus is creamy, inodorous, sometimes mixed with blood. When there is at the same time purulent gonorrhœal vaginitis, the pus exhales sometimes a fetid, nauseous odor. There occurs then what is seen in purulent collections, developed in the vicinity of natural cavities,

such as the intestinal tube—the pus takes by a sort of osmosis the putrid odor of the gases and matters contained in these cavities; the same here, the pus of the abscess borrows from that of the vagina its special nauseous odor.

The evolution of the inflammation of the vulvo-vaginal gland is rapid: in eight or ten days the cure is generally complete. Induration of the glandular tissue often remains; the abscess then re-forms, especially at the menstrual epoch; M. Gallard has seen several examples of it. In other cases, the opening remains fistulous, and this constant purulent discharge becomes a cause of hypochondria for the woman, and a port of entry for gonorrhœa and syphilis. The prognosis is not then absolutely favorable, and there may be occasion to resort to a surgical interference.

The diagnosis is generally easy. This pyriform tumor, situated at the entrance of the vulvar ring, between the labium majus, which it pushes outward, and the labium minus, which it flattens within, clearly detached from the neighboring parts and leaving intact the superior segment of the vulva, cannot be confounded with a stercoral abscess, with a presecto-vulvar abscess, nor with a purulent collection, proceeding from caries of the ischium. One will not confound this abscess with abscess of the labium majus. In fact, phlegmon of the greater lip is seated at the external portion of the vulva; it projects outward, not inward, like abscess of the vulvo-vaginal gland; finally, while the latter is habitually circumscribed and unilateral, phlegmon often becomes general, extending to the labia minora, the clitoris, and even, according to Huguier, to the mons veneris.

It is more difficult to diagnose between abscess and a cyst of the excretory duct. In both cases we find, on one side of the vulva, a globular tumor of limited extent, springing from the interior of the vulvar ring, and pushing the large lip outward; but in case of cyst, it is smaller, indolent, without reactionary and inflammatory phenomena; its greater diameter is directed according to the transverse direction of the excretory duct, and pressure causes the escape of a colorless fluid, slightly viscous but not purulent.

The pathogenic diagnosis is important, because it enables the physician to take measures to prevent a return of the affection.

The therapeutics of inflammation of the vulvo-vaginal gland is very simple. At the beginning, emollients, poultices of fecula, bran or starch baths. Flax-seed meal should not be used, as it becomes rancid, and irritates the vulvar mucous membrane. The patient should be kept in bed. When the abscess is formed, should we await its spontaneous opening or use the bistoury? M. A. Guérin has studied this question, and I fully agree with his conclusions. Fistulas are much more common when one hastens to open the abscess; it is much better to wait until it opens spontaneously through the mucous membrane or through the excretory canal. It generally opens in the nympho-labial furrow, and the cure is speedy. This is the plan I generally follow. I advise you, then, not to interfere, especially if the abscess is due to gonorrhœa. Still, when the pain is too severe, you may operate to relieve the suffering of the patient. In this case use the lancet or bistoury, and open the abscess in the nympho-labial furrow, near the orifice of the excretory duct of the gland. M. Gallard has recourse to a large incision, which he prolongs to the fourchette, in order to avoid the formation of purulent foci. In all cases it is best to place a piece of charpie in the wound to prevent too rapid union. If there exists a tendency to formation of a fistula, it is best to cauterize the surface of the focus with the crayon of nitrate of silver. In certain cases this practice is insufficient; the abscess is constantly reproduced, and becomes a real infirmity; it is then necessary to resort to excision of the gland. For this an incision is made in the nympho-labial fold, then separate the lips of the wound and cautiously dissect out the gland; when it is well separated from the surrounding parts, remove with the bistoury or scissors. The arteries should be carefully ligated, or they may bleed profusely, according to M. A. Guerin. As a dressing, a piece of charpie, saturated with a one per cent. solution of chloral, or a one-tenth per cent. solution of carbolic acid, should be laid over the wound.

SIMPLE AND FOLLICULAR VULVITIS.—(M. Gallard, *Journ. de Méd.*, p. 355, August, 1880.)

In a clinical lecture at La Pitié, the author said that the inflammations of the vulva were of two different forms—simple vulvitis and follicular vulvitis. Simple vulvitis is encountered much more frequently in little girls than in women, due, probably, to the fact that the former are not so cleanly in their habits as the latter; moreover, there sometimes occurs in them a true catarrhal inflammation, connected in certain cases with dentition. But in the child a medico-legal question is often raised, and one is frequently called to decide whether a vulvitis is of traumatic or spontaneous origin. Here it is important to recall a preliminary fact; it is that up to the age of five or six years, the vulva is much more prominent than in women, which might easily cause one to believe swelling to be present, when in reality there is none. This cause of error being known, we may admit, in a general way, that in vulvitis of traumatic origin it is very rarely that one does not find upon the genital parts, between the labia majora, or the fourchette, or even on the internal surface of the thighs, traces of contusion, or abrasions of such a nature as to cause us to recognize the wounds and injuries committed. In general, also, traumatic vulvitis is more circumscribed, confined to the vulva or meatus, and unequally distributed upon the parts affected. As to whether the discharge is simple or virulent, it is a question almost impossible to answer upon a first examination; it is only by the rapid course of the malady, which disappears rapidly if it be of simple traumatic origin, but which, on the contrary, persists a longer time if it is at the same time of gonorrhœal origin, that one can be positive on this subject. All these inflammations, however, whether they depend upon uncleanliness, fatigue or a true traumatism, disappear ordinarily very quickly under the influence of rest, emollients and appropriate baths, and these are the only means necessary for their cure.

By the side of this general inflammation is to be placed follicular vulvitis, in which the inflammation is localized, sometimes in the sebaceous glands, sometimes in the hair follicles. At the beginning, it is only manifested by slight elevations situated, principally, upon the labia majora, accompanied by swelling and

intense itching, then these small elevations rapidly increase in size and are transformed into small ulcerations which may either cicatrize very rapidly or remain ulcerated for a long time. It is at this period especially that diagnosis presents difficulties, but there is one important fact to be remembered; it is that one may always, by the side of these ulcerations, encounter follicles in the first stage of induration, forming small pimples easily recognized. It is principally on this character that is based the diagnosis between herpes, as well as the soft and hard chancres. It may happen, also, that in the latter case inoculation of syphilis takes place in these numereus ulcerations, and there results a multiplicity of chancres entirely abnormal.

This affection also arises from accumulation of the products of secretion, from the excitement produced by menstruation, and sometimes by scratching provoked by the presence of pediculi. Hence all irritating means, such as toilet vinegars and cosmetics, should be proscribed, and either alkaline substances or emollients be used.

OBSTETRICS.

A CASE OF SPONTANEOUS VERSION.—S. Lachapelle. (*L'Union Méd. de Can.*, p. 342, Aug. 1880.)

The author was called to attend a woman at term whose former labors had been natural and prompt. Examination showed the bag of waters broken, presentation of the vertex with occiput to the left sacro-iliac articulation, pelvis large, and considerable dilatation of the os. The bed was prepared and a second examination made: a strong pain, occiput to the sacrum. At the end of ten minutes a violent pain was felt by the woman, but without effect, upon the head, which did not advance. A few moments after, another pain so serious, that the head having almost completely passed the neck of the womb and resting upon the floor of the pelvis, I introduced the finger into the rectum, according to an old custom, to aid a prompt disengagement of the head. Suspension of pain; here I announced to the patient that the next pain would deliver her; another pain, no advancement, but the head retired rather. I awaited a new contraction, which

came soon, and examination showed still greater receding of the head. Some minutes of repose, then a new contraction coming on, I examined, and my hand encountered the cord at the left descending *en masse;* then, more to the right, a foot, and to the extreme right, opposite the iliac crest, the head. To hesitate longer appeared to me to be dangerous, and seizing the foot, I effected the version without trouble, and the labor was soon terminated. Fearing a too strong contraction of the neck, I at once sought for the placenta, which I had great trouble in extracting on account of the resistance of the neck. There was grave hemorrhage, which, however, was not followed by any grave secondary complication.

Such is the case in all its nakedness, for though not complete, I have no doubt that it would have been if I had not interfered. What seems remarkable is, not the spontaneous version itself, for that must be admitted, but the spontaneous version after escape of the amniotic fluid, which many authors deny.

I avow, without shame, that I had not foreseen such a thing, for I was ignorant of the possibility of it, sharing the opinion of those who deny it. If it had not been for this ignorance on my part, I might have been able to study the course of the pains and prove if there was in this case irregular contraction of the walls of the uterus. It is in this way that spontaneous version must be explained. Cazeaux says: "I am led to believe that irregularity of contractions is not strange in such cases. In certain cases the organ seems not to contract except in a certain part of its extent, the other closing with less force or even remaining completely inert."

THERAPEUTICS.

THERAPEUTIC USE OF IODOFORM.—(*Jour. de Méd.* p. 371, Aug., 1880.)

According to Dr. Lindemann, the balsam of Peru completely masks the odor of iodoform; two parts of the balsam completely neutralize one part of iodoform. The best vehicles are lard,

glycerine, or better still, vaseline. Here is a formula which the author recommends:

Iodoform	1 part.
Balsam of Peru	3 parts.
Vaseline	8 parts.

He also often prescribes the following:

Iodoform	1 part.
Balsam of Peru	3 parts.
Alcohol, glycerine or collodium	12 parts.

First mix the iodoform and balsam thoroughly, then add the other ingredients.

THE USE OF PURE WATER IN ERECTING BUILDINGS. Dr. Walter Fergus writes, in the *Lancet* of October 9, and certainly his suggestion is well worthy of consideration: In reading your remarks upon the prosecution of the builders who used earth in place of mortar at Edmonton, it occurred to me to mention how important it is to use pure water in mixing mortar, whether for building or for plastering dwelling-houses. Newly-built houses are notoriously apt to prove anything but salubrious to the first inmates. Much of this unhealthiness of new houses may be owing to the use of foul and polluted water for making the mortar.

A NEW and apparently a most valuable method of preserving raw meat, discovered by Prof. Artimini, of Florence, and patented in this country, bids fair to supply a long-felt want and to have an appreciable effect on our markets. According to a report by Profs. Barff and Mills, of Glasgow, and Dr. Stevenson, of Guy's Hospital, meat six months old was found to be perfectly sound and good, the muscular fiber unchanged, and the nutritive properties unimpaired (*Med. Times and Gazette*). The material employed is stated to be less expensive than salt, and not only wholesome, but pleasant to the taste.

Items.

THE sixth annual meeting of the Indiana, Illinois and Kentucky Tri-State Medical Society will be held at Masonic Temple, Louisville, Ky., on Tuesday, Wednesday, Thursday and Friday, 9th, 10th, 11th and 12th November, 1880. Convenes Tuesday, 9th, at 9 a. m.

Order of Business.—1. Prayer, by the Rev. Jas. P. Boyce; 2. Welcome address, by Mayor J. G. Baxter; 3. Welcome address in behalf of Kentucky, by Gov. Blackburn; 4. Welcome address in behalf of the profession, by Dr. E. R. Palmer; 5. Response. 2 p. m.—6. Report of Committee on Arrangements, by Dr. W. W. Senteny, Louisville; 7. Report of Secretary and the Committee on Publication, by Dr. G. W. Burton, Mitchell, Ind.; 8. Report of Treasurer, by Dr. F. W. Beard, Vincennes, Ind.; 9. Call for volunteer papers; 10. New method of closing amputation stumps by "mattrass sutures," by Dr. A. C. Bernays, St. Louis; 11. Typho-malarial fever, or mongrel hybrid compound fevers, by Dr. Chas. F. Reber, Shelbyville, Ind.; 12. Something in connection with State medicine, by Dr. Thad. M. Stephens, Indianapolis. 7:30 p. m.—President's address, by Dr. H. B. Buck; Microscopic exhibitions, by Dr. J. B. Marvin, of Louisville, and assistants.

Second Day.—Chairman of Sections: Surgery—Dr. J. R. Weist, Richmond, Ind.; Practice of Medicine—Dr. B. M. Griffith, Springfield, Ill.; Obstetrics—Dr. Geo. B. Walker, Evansville, Ind.; Gynæcology—Dr. Ed. W. Jenks, Chicago; Pathology and Microscopy—Dr. J. Gardner, Bedford, Ind.; Ophthalmology—Dr. J. E. Harper, Evansville, Indiana; State Medicine—Dr. Horace Wardner, Anna, Illinois.

Regular papers.—1. Tubercular cerebral meningitis, by Dr. J. B. Richardson, Louisville; 2. The early manifestations of insanity, by Dr. B. W. Stone, Hopkinsville, Ky.; 3. Insanity, home and asylum treatment compared, by Dr. C. C. Forbes, Louisville; 4. Mediæval medicine, by Dr. H. C. Fairbrother, East St. Louis; 5. Hæmiopia, mechanism of, causation of, the theory of total decussation of fibers of the optic tracts at the chiasma, by Dr. Wm. Dickinson, St. Louis; 6. Embliopia from disuse, by Dr. Williams, of Cincinnati; 7. Architectural hygiene, by Dr. E. W. Gray, Bloomington, Ill.; 8. Treatment of ununited fractures, by Dr. Duncan Eve, Nashville; 9. The histopathology of scarlet fever, by Dr. J. V. Block, Jacksonville, Ill.; 10. Chemistry versus vitality, by Dr. John T. Freeland, Freelandsville, Ind.; 11. Effects of the sulphate of quinia during pregnancy and after delivery, by Dr. F. G. Ford, Russellville, Ind.; 12. Investigation of utero-placental circulation, by Dr. Ferdinand Smith, Frankfort, Missouri; 13. The use of atropia sulphate in the collapse of cholera, cholera morbus, and kindred affections, by Dr. S. P. Craik, Stanford, Ky.; 14. What is the matter with my patients? by Dr. A. W. Spain, Poseyville, Ind.; 15. The successful physician, by Dr. W. A. Hunt, Lynnville, Ind.; 16. So called changes in types of disease, by Dr. B. R. Helm, Carlisle, Ind.; 17. Dressing of wounds, by Dr. David Prince, Jacksonville, Ill.; 18. Remarks on the pathology and treatment of epilepsy, by Dr. J. S. Jewell, Chicago; 19. Mind in its relation to the healing art, by Dr. C. H. Spillman, Harrodsburg, Ky.; 20. Thoughts on progressive medicine, by Dr. J. W. Singleton, Paducah, Ky.; 21. Surgical treatment of dysmenorrhœa, by Dr. J. P. Thomas, Pembroke, Ky.; 22. Mind as a therapeutic agent, by Dr. J. J. Speed, Louisville; 23. Early management of infancy, by Dr. J. A. Larrabee, Louisville; 24. Report of cases, by Dr. J. W. Thompson, Paducah, Ky.; 25. Puerperal convulsions, by Dr. W. W. Cleaver, Lebanon, Ky.; 26. Neuralgia of infra- and supra-orbital nerves, by Dr. Thos. F. Rumbold, St. Louis; 27. Arrest of evolution versus maternal impressions, by Dr. Arch. Dickson, Henderson, Ky.; 28. Aid of microscope in diagnosing disease, by Dr. W. S. Ross, Evansville, Ind.; 29. Pernicious fever, by Dr. C. H. Norred,

Lincoln, Ind.; 30. Conjectures on tactile sensibility, by Dr. W. J. Cole, Blairsville, Ind.; 31. A few cases of rupture of the lungs, by Dr. J. P. Ross, Chicago; 32. Total extirpation of the uterus, by Dr. E. C. Dudley, Chicago, Ill.; 33. Some unusual manifestations of hysteria, by Dr. Edwin Walker, Evansville, Ind.; 34. Cox's operation for impassable stricture, by Dr. A. N. Johnson, Danville, Ky.; 35. Therapeutic value of some of our indigenous plants, by Dr. Lucian McDowell, Flemingsburg, Ky.; 36. Use of forceps in obstetrical practice, by Dr. S. B. Friror, Catlettsburg, Ky.; 37. Wound dressing, by J. H. Letcher, Henderson, Ky.; 38. Contagiousness of phthisis, by Dr. S. M. Letcher, Richmond, Ky.; 39. Ophthalmic therapeutics, by Dr. John Green, St. Louis; 40. The proper management of natural labor, by Dr. A. D. Price, Harrodsburg, Ky.; 41. Questions in lithotrity, by Dr. R. A. Vance, Cincinnati, O.; 42. Typho-malarial fever, by Dr. J. W. Compton, Evansville, Ind.; 43. The dangers in our present educational system, by Dr. W. W. Blair, Princeton, Ind.; 44. Ovarian tumors, by Dr. Ed. Borck, St. Louis; 45. Pyelitis and its relation to Bright's disease, by Dr. I. N. Danforth, Chicago; 46. Diseases of the eye in connection with general diseases, by Dr. W. W. Cheatham, Louisville, Ky.; 47. Post partum injection of uterine cavity, by Dr. B. J. Day, Evansville, Ind.; 48. Obstetrics, by Dr. Walter Coles, St. Louis; 49. A physician's problems in psychiatry, by Dr. C. H. Hughes, St. Louis; 50, ———, Dr. Ohman Damisnell, St. Louis; 51. Prevention and treatment of mammary abscess, by Dr. W. H. Taylor, Cincinnati, O.; 52. Treatment of diphtheria by quinine inhalations, by Dr. Gustave Zinke, Cincinnati, O.; 53. Non-astringent caustic treatment of conjunctival inflammations, by Dr. W. W. Seely, Cincinnati, O.; 54. Dyspepsia, by Dr. H. Illoway, Cincinnati, O.; 55. Extirpation of parotid gland, by Dr. J. P. Harvey, Grove City, Ill.; 56. ———, W. D. Davis, Cincinnati, O.; 57. Public address, by Dr. Theophilus Parvin, Indianapolis; 58. Porro's method in the Cæsarean operation, by Dr. J. W. McCormick, Bowling Green; 59. Lactation, by Dr. Theophilus Parvin, Indianapolis; 60. Objective points in the treatment of phthisis, by Dr. Wm. Porter, St. Louis; 61. Modus operandi of cod liver oil, by Dr. Samuel Nickels,

Cincinnati, O.; 62. Treatment of stricture of bulb of the urethra, by Dr. W. H. Ford, St. Louis; 63. Management of children under surgical treatment, by Dr. C. A. Le Boutellier, Cincinnati, O.; 64. Recent investigations in pathology, by Dr. G. H. Hallister, Cincinnati, O.; 65. Color blindness, by Dr. M. F. Coomes, Louisville; 66. "Dr. Tanner," by Dr. J. Hays, Louisville; 67. "Risks of surgical operations," by Dr. J. Hale, Owensboro, Ky. If desirable, the different sections will hold separate meetings in the afternoons.

Officers for 1880.—President, Dr. H. B. Buck, Springfield, Ill.; First Vice President, Dr. S. E. Monford, Princeton, Ind.; Second Vice President, Dr. J. P. Thomas, Pembroke, Ky.; Third Vice President, Dr. T. J. Ford, Russelville, Ill.; Secretary, Dr. G. W. Burton, Mitchell, Ind.; Treasurer, Dr. F. W. Beard, Vincennes, Ind.; Chairman Committee of Arrangements, Dr. W. W. Senteny, Louisville; Chairman Committee on Programme, Dr. W. W. Cheatham, Louisville; Committee on Transportation, Drs. R. O. Cowling, Geo. W. Griffths, and John A. Brady, Louisville; Chairman Committee on Entertainment, Dr. T. P. Satterwhite.

Railroad Rates.—L. & N. and tributaries, three cents a mile each way. Short Line and tributaries, one and one-third fare round trip. L., N. A. & Chicago, one-half fare round trip. Jeffersonville, Madison & Indianapolis, two and one-half cents a mile each way. Ohio & Mississippi, one and one-third fare.

Hotel Rates.—Louisville Hotel, $2.50 per day; Galt House, $2.50 per day; Willard Hotel, $2.00 per day; Alexander's Hotel, $2.00 per day; Fifth Avenue Hotel, $2.00 per day; St. Cloud Hotel, $1.50 per day.

MALARIA IN NEW ENGLAND.—The increase of malarial diseases, especially intermittent fever, in New England, is exciting considerable attention (*Med. and Surg. Reporter*) The Massachusetts State Board of Health, with its accustomed zeal and energy, has taken hold of the subject, and has already collected a mass of facts which is astounding, and confirms to the fullest extent the rumors heretofore prevalent. The form of ague near near Providence, R. I., is said almost to equal the worst forms in the Southern States.

Obituary.

RESOLUTIONS IN MEMORY OF THEODORE B. CHURCH.

WHEREAS, It has pleased the Supreme Judge of the Universe to call from amongst us our esteemed friend and associate, the late Theodore B. Church, whose early decease was due to his untiring efforts in the exercise of professional services toward those placed under his charge; and

WHEREAS, We have been deprived of the companionship and counsel of our brother student, whose ability and learning, unsullied reputation and high sense of honor, have endeared him to the memory of his associates and made our mutual intercourse pleasant and agreeable; it is highly proper and right that we should show with what feelings of deep regret and sorrow we learned of his untimely death; Therefore

Resolved, That in the early decease of Theodore B. Church, the students of Rush Medical College have lost a useful, wise and good brother; the college a devoted and exemplary member, and the profession one of her most promising sons.

Resolved, That his generous, manly character and studious habits, command our admiration, and his example our earnest following.

Resolved, That to the family of the deceased we tender our heartfelt sympathy in this their time of bereavement and mourning.

Resolved, That his customary seat in the lecture-room be draped with the emblems of sorrow.

Resolved, That a copy of these resolutions be sent to the family of the deceased, and a copy also inserted in the daily papers of Chicago and Rockford, and the medical journals of this city.

C. G. SHIPMAN,
C. E. WINSLOW,
A. GARWOOD,
} *Committee.*

RUSH MEDICAL COLLEGE, Sept. 29, 1880.

SOCIETY MEETINGS.

Chicago Medical Society—Mondays, Nov. 1 and 15.
West Chicago Medical Society—Mondays, Nov. 8 and 22.
Biological Society—Wednesday, Nov. 3.

CLINICS.

MONDAY.

Eye and Ear Infirmary—2 p. m., Ophthalmological, by Prof. Holmes; 3 p. m., Otological, by Prof. Jones.
Mercy Hospital—2 p. m., Surgical, by Prof. Andrews.
Rush Medical College—2 p. m., Dermatological and Venereal, by Prof. Hyde.
Woman's Medical College—2 p. m., Dermatological and Venereal, by Prof. Maynard; 3 p. m., Diseases of the Chest, Prof. Ingals.

TUESDAY.

Cook County Hospital—2 to 4 p. m., Medical and Surgical Clinics.
Mercy Hospital—2 p. m., Medical, by Prof. Quine.

WEDNESDAY.

Chicago Medical College—2 p. m., Eye and Ear, by Prof. Jones.
Rush Medical College—2 p. m., Medical, by Dr. Bridge; 3 p. m., Ophthalmological and Otological, by Prof. Holmes; 3:30 to 4:30 p. m., Diseases of the Chest, by Dr. E. Fletcher Ingals.

THURSDAY.

Chicago Medical College—2 p. m., Gynæcological, by Prof. Jenks.
Rush Medical College—2 p. m., Diseases of Children, by Dr. Knox; 3 p. m., Diseases of the Nervous System, by Prof. Lyman.
Eye and Ear Infirmary—2 p. m., Ophthalmological, by Dr. Hotz.
Woman's Medical College—3 p. m., Surgical, by Prof. Owens.

FRIDAY.

Cook County Hospital—2 to 4 p. m., Medical and Surgical Clinics.
Mercy Hospital—2 p. m., Medical, by Prof. Davis.

SATURDAY.

Rush Medical College—2 p. m., Surgical, by Prof. Gunn; 3 p. m., Orthopœdic, by Prof. Owens.
Chicago Medical College—2 p. m., Surgical, by Prof. Isham; 3 p. m., Neurological, by Prof. Jewell.
Woman's Medical College—11 a. m., Ophthalmological, by Prof. Montgomery; 2 p. m., Gynæcological, by Prof. Fitch.

Daily Clinics, from 2 to 4 p. m., at the Central Free Dispensary, and at the South Side Dispensary.